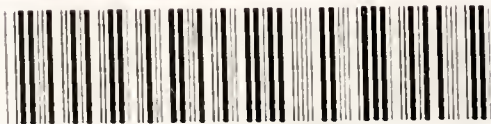


RECENT
MATERIA MEDICA.

FIFTH EDITION

F. HARWOOD LESCHER.



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RECENT MATERIA MEDICA,

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NOTES

ON THEIR ORIGIN AND THERAPEUTICS.

FIFTH EDITION.

BY

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PEREIRA MEDALIST,

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AUTHOR OF 'THE ELEMENTS OF PHARMACY,'

AUDITOR OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.

LONDON:

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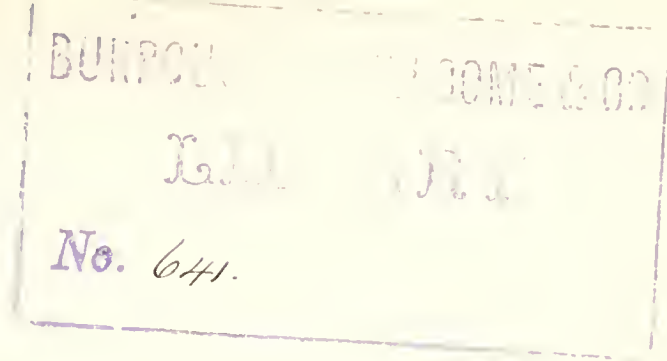
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INTRODUCTION.

ALL branches of Medical Science have taken great strides of late years. In Surgery, Spencer Wells and Lister, in Biological Medicine, Pasteur and Koch, have made clear steps in advance; and Therapeutics have become more rational, based on more accurate knowledge and a more extended field.

And here an advanced state of information about new *Materia Medica* must be a decided help to the medical practitioner. Although there are many well-known remedies, superior in general practice to those mentioned in the following pages, yet every medical man has occasionally cases in which he would be glad to “ring the changes,” and humour the system of his patient by trying a new medicine.

The information in these Notes is compiled from many sources, extending over several years.

Besides the Medical and Pharmaceutical Periodicals, the Author owes thanks to the new Pharmacopœias of Germany, the United States, and France; to the Year-books of Pharmacy, the Therapeutical works of Bartholow, Wood, Napheys, Farquharson, and Ringer; Husemann and Hilger's ‘*Pflanzenstoffe*,’ Hanbury's ‘*Pharmacographia*,’ Bentley and Trimen's ‘*Medicinal Plants*,’ Martindale's ‘*Extra Pharmacopœia*,’ Squibb's ‘*Ephemeris*,’ Maisch's ‘*Materia Medica*,’ Baillon's ‘*Botanique Médicale*,’ Quain's ‘*Dictionary of Medicine*,’ the ‘*American*

Druggist,' the 'American Med.-Surg. Bulletin,' Papers by E. M. Holmes, Merck, Helbing, Christy, &c. &c. In a few cases Chemical Formulæ and doses are not put down, where they are not yet sufficiently to be depended upon.

MAY, 1884.

A few alterations and additions have been made in the Second Edition.

NOVEMBER, 1884.

During the last four years many new remedies have been tried in medicine. Nearly a hundred are added in this Third Edition, and numerous alterations and additions have been made throughout.

SEPTEMBER, 1888.

In this Fourth Edition about a hundred new remedies are added, including those in the 1890 Additions to the "British Pharmacopœia," which increases the matter by about one fifth. Koch and Pasteur are still in the front rank of those who are fighting in the cause of Truth against the morbid conditions that tend to shorten human life. Chemistry, by its synthetical compounds, has given lately many valuable remedies to *Materia Medica*.

SEPTEMBER, 1891.

In the last few years there have been many additions to our *Materia Medica*, most of which are now inserted in this Fifth Edition. Although conservative in the retention of what has proved of real service in fighting against human suffering in Medicine and Surgery, the medical profession in all countries is ever inquiring after new remedies and making further steps

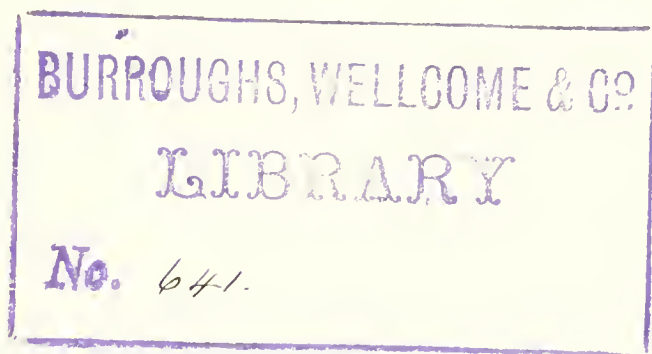
in advance in therapeutics. Modern chemical synthesis has given us many articles, and biological investigations have produced serum cultures, antitoxins, and organic animal extracts.

The present area of bacteriological science has a practical application in the prevention and cure of disease, and independent research is bringing us advanced knowledge of synthetic built-up chemicals.

New toxins, or the toxic products of bacteria, each poisonous microbe appearing to form its own peculiar toxin, are discovered on the one hand; whilst the phagocytes—or white corpuscles of the blood,—the defensive agency of the living organism, devouring and digesting the micro-organisms of infective diseases, are being investigated on the other.

With reference to the newer *Materia Medica*, we may conclude in the words of Sir Joseph Lister, in his address as President of the British Association at Liverpool in 1896:—
“Let the thing tried be that which, according to our best judgment, is the most likely to promote the welfare of the patient.”

JANUARY, 1897.



THERAPEUTIC TABLES.

(N.B.—The asterisk denotes strong recommendation by medical authorities.)

ABCESS, &c.

*Hyd. Oleat. and Morph.

AGUE.

See Intermittent Fever.

ALBUMINURIA.

Calcium benzoate

Eucalyptus

Fuchsin

ALTERATIVES.

Asclepias incarnata

Baptisin

Carnauba

Cascara amarga (tonic)

*Collinsonia (diuretic)

Corydalin

Hydrastis

Hydrocotyle

Juglandin

Jurubeba

Manaca

Menispermum Canadense

Monesia (excitant)

Phytolacca

Rumex

Rumicin

Siegesbeckia

*Stillingia...

Stillingin...

Yerba buena (tonic laxative)

AMENORRHŒA.

Apiol

Gossypium (*root*)

Menyanthes

*Potass. permanganas

Pulsatilla

ANÆSTHETICS.

Carbon tetrachloride

Drumine (*local*)

Ethylene bichloride

Ethyl bromide

Hydride of amyl

Methyl chloride...

Methylene bichloride

ANÆMIA.

See Tonics.

ANGINA PECTORIS.

*Nitro-glycerine

ANTI-OXYTOCIC.—*Viburnum

ANTISEPTICS.†

Atlantic acid

Aldehyde

Aseptol

Boroglyceride

Cinnamic acid

*Creolin

Cresalol

Cresol

Dioxynaphthalene

Eugenol

Helenin

Iodine trichloride

*Iodoform

*Iodol (*wounds*)

Listerine

*Mercury and zinc cyanides

*Naphthalin

*Naphthol

Phenol

Phenol camphor

Potass. permanganas

Pyoktanin

Resorein

Sal alenbroth

Salol

Salufer

Sodium fluosilicate

Sozoiodol

Sulphaminol

Thiocamph

Thioresorein

Thymol

Tribromo-phenol

Trichlor-phenol

AROMATICS—odoriferous.

Coumarin

Faham

Heliotropin

Liatris (*deer-tongue*)

Pichurin beans

Vanillin

† Recent experiments show that, to destroy morbid germs, the most reliable disinfectants are the following, placed in their order of merit or strength:

Solution of corrosive sublimate	1	in 5000
" nitrate of silver	1	" 1000
" salicylic acid	1	" 1000
" carbolic acid	1	" 50
" sulphate of copper	1	" 5
" boracic acid	1	" 5

The first-named is much used in the New York hospitals. Bromide vapour is as powerful as any of these solutions.

The bacilli of typhoid fever are destroyed by corrosive sublimate 1 in 20,000; of cholera by mineral acids; of tuberculosis by the fluosilicates of iron and potash.

ASTHMA.

Aspidospermine
 Caffeine citrate (bronchial)
 Drosera
 *Euphorbia pilulifera
 *Grindelia robusta
 Hydriodic acid
 Ouabaïn
 Pyridin
 *Terpin hydrate

ASTRINGENTS.

Eucalyptus (*gum*)
 Ferri salicylas
 Geranin
 Persimmon
 Pinus canadensis

BOILS.

Lycopodium

BRIGHT'S DISEASE.

Calcium benzoate
 Colchicine

BRONCHITIS.

Camphoric acid
 Coceillana
 Ethyl iodide (dyspnœa)
 *Eucalyptol
 Euphorbia pilulifera
 *Grindelia robusta
 Helenin
 Hydrogen peroxide (dyspnœa)
 Lippia
 *Prunus virgin.
 Terebene
 Terpin hydrate
 *Yerba santa
 See Coughs, Catarrh.

CALCULUS.

Pielhi

CANCER.

Alvelós
 Cliau turpentine (*doubtful*)

CARMINATIVES.

Ajowan (*seeds*)
 Boldo

CATARRH, COLDS, &c.

*Grindelia robusta
 *Ol. Eucalypt.
 Yerba rhenma
 See Bronchitis.

CHLOROSIS.

Cetrarin

CHOLERA.

Copper arsenite
 Cotoine
 *Paracotoine
 *Salol

CHOREA.

Antipyrin
 Calabar bean

CONSTIPATION.

*Caseara sagrada (obstinate and dys-peptic)
 Elaterin
 See also Purgatives.

COUGH.

Apomorphia hydrochlor.
 Cheken
 *Codeia
 Hyoseyamine
 Jujubes (*fruit*)
 Naphthalin
 (Emanthe Phellandrium
 Terebene

See also Emetics, Catarrh.

CROUP. See Emetics.

CYSTITIS—and bladder irritation.

*Arbutin (urinary catarrh)
 Barosmin
 *Collinsonia
 Pielhi (and in lithuria)
 *Stigmata of maize, or corn silk *Tritium repens*

DEBILITY.

See Tonics and Stimulants.

DELIRIUM TREMENS.

Hyoseyamine
 See Sedatives.

DEMULCENTS.

Ceylon moss
 Ulmus fulva

DIABETES.

Arsenic bromide
 *Codeia
 *Jambul seeds (*Syzygium*)
 Lactic acid
 Rhus aromat.
 Saccharin
 Uranium nitrate

DIAPHORETICS.

Atherosperma (phthisis and asthma)
 Eupatorium

DIARRHŒA.

Ceylon moss
 Copper arsenite
 Coto bark
 *Cotoine (phthisis)
 Monesia
 Rumex
 Sodium benzoate (children)
 See also Astringents.

DIPHTHERIA.

Chinolin
 Lactic acid
 *Papayotin
 Phytolacca
 Resorein
 Sodium benzoate

DIURETICS.

Asclepias cornutum
 Asparagin, or Althein
 Caffeine citrate
 Chelidonium
 Chimaphila
 Cockroach
 Diuretin
 Galium
 Nettle
 Paraldehyde
 *Physalis. alk.
 Sarraecenia
 Scillipierine
 *Scoparine
 *Sparteine sulph.
 Ulexine

DROPSY.

Bryonin
 Calinca
 Cockroach (Blatta)
 *Convallaria
 Erigeron

See also Diuretics.

DYSENTERY.

Asclepin (febrile)
 Holarrhena
 Koromico
 Papaw
 Rhus glabra
 *Yerba rheuma

See also Astringents and Diarrhœa.

DYSMENORRHEA.

Anemonin
 Cotton-root (abortifacient)
 OL. Pin. Canadens.

DYSPEPSIA (Flatulence).

*Boldo
 Cedron
 *Coca
 Ingluvin
 Lactic acid
 Lacto-peptine
 *Pancreatin
 *Peptones
 Sodium sulphocarbolate
 „ taurocholate (gonty)

ECZEMA.—See Skin Diseases.

EMETICS.

Apocynum
 *Apomorph. hydrochlor.

EPIIDIDYMITIS.

*Hyd. oleat. & morph.

EPILEPSY.

Acetanilid
 Anilin
 Bromal

EPILEPSY—continued.

*Gold and Potassium bromide
 Mudar bark
 *Picrotoxine
 Rubidium and Ammonium bromide
 Simulo
 *Zinc lactate, bromide, and citrate

ERYSIPELAS.

See Skin Diseases.

EXPECTORANTS.

Terebenc
 *Terpin hydrate

EYE.—Diseases of the.

Daturine
 Duboisia
 Duboisine
 *Eserine, or Physostigmine, and its salts

Homatropine and its salts

Hyoscyamine

Hyoscyne salts

Jequirity

Rusot

FEVERS, INTERMITTENT

(Ague, Malaria).

*Acetanilid
 Acetphenetidin
 Adansonia
 Alstonia
 Alstonine
 Ammon. carbazotas
 *Ammonium picrate
 *Antipyrin (Phenazonum)
 Antithermin
 Buxine
 Caffeine
 Cedron
 Chinoline and its salts
 Cobweb
 Conessi bark
 Cornus
 *Dita bark
 Ditamine
 Doundaké
 Eucalyptene
 *Grindelia squarrosa (chills)
 Hederine
 Hydrastine
 Kairine (reduces temperature)
 Narcotine
 Pao-pereiro
 Phlorizin
 Piperine
 *Quinine Bromohydrate or bromide,
 Q. bibromide, Q. sulphocarbolate
 Rusot
 Thallin
 Urea-Quinine Hydrochlorate
 *Warburg's Tincture

FEVERS (ANTIPYRETICS).

(Typhus, Typhoid, &c.)

- *Acetanilid (antifebrin)
- *Antipyrin
- Antithermin
- Bismuth salicylate
- Crotalus (diphtheritic scarlatina)
- Di-iodosalicylic acid
- *Euphorin
- *Exalgine
- Hydrastine
- Hydrastine hydrochlorate
- Kommis (drink)
- Lantana
- Leptandrin
- Mertol
- Methacetin
- Orthin (dangerous)
- Paubotano (malaria)
- Paraeresotic acid
- Pereirine (malaria)
- Peroxide of hydrogen (scarlet fever)
- Phenacetin
- Pyrodin
- *Salol
- Salpyrin
- Sodium Dithiosalicylate
- *Sodium paraeresotinate
- Thallin (children)

GLANDS—enlarged.

- Hydriodic acid
- Hydrofluoric acid (goitre)
- Oleas morph.

GONORRHOEA.

- BetoI
- Gurgun Balsam
- *Kava-kava
- *Potass. permangan.
- Retinol, Rosinol
- Thallin
- Yerba rhenma
- Zinc sulphocarbolate

GOUT.

- Asparagin or Althein
- Coffee (green) wine
- Colchicine
- *Lithia benzoate
- „ guaiacolate
- „ hippurate
- „ salicylate
- Physalis
- *Piperazadine
- Quinine and Cinchonine salicylates (rheumatic)
- *Sodium hippurate
- See also Diuretics.

HÆMATURIA, HÆMOPTYSIS, &c.

Ergotine (alkaloidine)

*Hamamelis

HÆMORRHAGE—external.

Amadon

Cobweb

*Lycoperdon (*puff-ball*)

HÆMORRHAGE—internal.

*Ergotin

Hamamelin

*Hamamelis

Vinea major (menorrhagic, &c.)

HÆMORRHOIDS.—Teuerium

HAY-FEVER.—Antipyrin

HEADACHE.

Acetic ether in pounded ice

*Antipyrin (bilious)

*Caffeine and Caffeine citrate (neuralgic) and other salts of caffeine

Cimicifuga (uterine)

Ethoxycailline

*Guarana

Guaranine

Saffrol

HEART.—Diseases of.

Adonidin

Adonis vernalis

Apocynin

Caffeine salts (in large doses)

Casea, or sassy (heart tonic)

Cerens

Cimicifuga

*Convallamarin

*Convallaria (heart tonic)

*Digitalin

Erythrophleine

Helleborein

Phynin

Scillitoxine

Strophanthin

*Strophanthus

Veratrum vir.

HYDROPHOBIA.

Cnrare

Curarine

HYPNOTICS.

Amylene

Bromal

Bromal hydras

Chloralimide

Chloralimide

Haschisch

Hyoscyamine

Hypnal

Hypnon

Methylal

Monobromated camphor

*Paraldehyde

HYPNOTICS—continued

- Somnal
- *Sulphonal
- Tannate of cannabine
- Tetronal
- Trional
- Ural
- *Urethane
- See also Sedatives and Narcotics.

HYSTERIA.

- Allyl tribromide
- Conia and its salts
- Cotyledon numb.
- Simulo

See also Sedatives.

INFLAMMATION.

- Morphia oleat.

INFLUENZA. See Catarrh.**INSOMNIA** (sleeplessness).

See Hypnotics.

IRRITANTS.

- Saponin
- *Thapsia (external rubefacient)

LEUCORRHEA.

- Pinus canadensis

LIVER—diseases of (Jaundice, &c.).

- Baptisin
- Boldo (tonic)
- *Enonymin (stimulant)
- Ferrum succinas (jaundice)
- Henna (jaundice)
- Hydrastine (tonic)
- Hydrastis
- *Iridin (stimulant)
- Juglandin (laxative stimulant)
- Leptandrin (stimulant)
- Myricin (stimulant astringent)
- Phytolaccin
- Pieropodophyllin
- Podophyllotoxin
- *Podophyllin (stimulant)
- Podophyllum
- Sanguinarin

MALARIA. See Fevers.**MANIA.**

- *Hyoscine sulphate, hydrobromate, &c.
- Jamaica dogwood
- See also Sedatives.

MENORRHAGIA.

- Ergot
- Ergotine
- Viburnum

NARCOTICS.

- Helleborin
- Kalmia (poisonous)
- Pitouri

NEURALGIA.

- Aconitine nitrate
- Aconitum ferox

NEURALGIA—continued.

- Antipyrin
- Essentin
- Cypripedin (narcotic in female nervous affections)
- *Gelsemine
- *Gelseminum
- *Menthol
- Methylene blue
- Quinine and Cinchonine salicylates

OBESITY.

- Ficus vesiculosus

PARALYSIS.

- Ammonium formias
- Mudar bark
- Nettle (locally and in palsy)
- Rhus toxicodendron

PARTURITION (for uterine contractions).

- Caulophyllin (tonic)
- Ergot of corn, or Ustilago maidis
- Ergotin

Sclerotic acid*PHTHISIS** (tuberculosis).

- *Agarie
- Agaricin (night sweats)
- Alantol
- Anacalmite
- Benzoyl-guaiacol
- Cantharidin (Liebreich)
- Guaiaacol

„ salicylate

- Hypophosphites
- Morrhuel
- Phenyl-acetic acid
- Quebracho
- *Tuberulin (Koch)
- Verbascum

PLEURISY.

- Asclepias tuberosa
- Bryony
- *Pilocarpine and its salts
- See also Sudorifics.

PURGATIVES.

- Adonis
- Agarie (*white*)
- Alenrites
- Aloin
- Apocynum
- Aralia
- Asarum
- Bryonin
- Bryony
- *Cathartine acid
- *Cascara sagrada
- Colocynthidin
- Colocynthin
- Convallarin
- Cnicus purgans

PURGATIVES—*continued.*

- Digitalein
- *Rhamnus frangula (tonic)
- Sanguinaria (diaphoretic)
- *Sodium sulphovin. (mild)
- Turpeth (*root*)

RHEUMATISM.

- *Acetanilid
- Acid. anisic
- *Antipyrin (acute)
- Betol
- Cimicifuga (acute)
- Cimicifugin
- Colchicine
- Coto bark
- Lithia sulpho-ichthyol
- Manaca
- Monobromacetanilide
- Morph. oleat.
- Oil of horse-chestnuts
- Oil of Ajowan
- Oil of eucalyptus
- Pinus sylvestris (*fir-wood*)
- *Quinine iodide (chronic)
- Salol (acute)
- *Sodium dithiosaliclate
- *Trimethylamine (acute)
- Xanthoxylum (chronic)

RINGWORM.

- Chrysarobin
- *Cupri oleas
- Goa powder
- *Siegesbeckia

See also Skin Diseases.

SCABIES (itch).

- Ichthyol
- Naphthol
- Ndilo oil
- *Hydrarg. oleat.

SCIATICA.

- Antipyrin
- Drumine
- *Morphia and atropia
- Osmic acid
- Salol

See also Neuralgia.

SCROFULA.

- Berberis aquifolium
- Chimaphila

See also Alteratives.

SEA-SICKNESS.—*Antipyrin

SEDATIVES.

- Cimicifuga
- *Codein and salts
- Ethoxycafeine
- Hydrobromic acid
- *Iodoform
- *Jamaica dogwood

SEDATIVES—*continued.*

- Morphia bromide, meconate, and *tartrate
- Narceine
- Papaverine
- *Paraldehyde
- *Salix nigra (uterine)

SKIN—diseases of.

- *Aristol
- Bismuth subiodide (dusting)
- Burdock
- Camphoric acid
- Chaulmoogra oil
- Chrysarobin
- Dermatol
- Goa (araroba) powder
- Gurjun balsam
- *Gynocardic acid
- Hoang-Nan
- Hydrastine
- Hydronaphthol (ringworm)
- *Ichthyol
- Mollinum
- *Naphthalin
- Naphthol
- *Oleates of arsenic, copper, lead, mercury, bismuth, zinc, mercury and morphia, &c.
- Ol. Declinee
- Oxy-naphthoic acid (scabies)
- Papaine (removing tissue)
- Pongamia oil
- Salicylic acid (thickened epidermis)
- Sodium ethylate (caustic)
- Sulphaminol
- Thiol
- Thioresorcin
- Zinc sulpho-ichthyol
- Zinc sulphhydrate (eczema)

SMALLPOX.

- Xylol (*doubtful*)

SNAKE-BITES.

- Guaco
- Hoang-Nan
- Mudar bark

SORES, ulcers, wounds.

- Calendula (*in ointments*)
- Galium aparine (ulcers)
- Peroxide of hydrogen (to destroy pus)
- Terebene (antiseptic)
- Thuja (ulcers)

SPERMATORRHEA.

- Damiana (supposed aphrodisiac)
- Piperazine hydrochloride
- Spermine

SPINAL IRRITATION.

- Picrotoxine
- Zinc phosphide

STIMULANTS.

- Caffeine
- *Coca
- *Cocaine (nervous), or Erythroxyline
- Contrayerva root (aromatic)
- Kola nut (tonic)
- Maté (nervous restorative)
- Scutellarin (nervous tonic)
- Theine (tonic)
- Xanthoxylum (warming aromatic)
- Zinc phosphide (nervous)
- See also Tonics.

STOMACHICS.—Orexin

SUDORIFICS.

- Caroba (tonic diuretic)
- *Jaborandi
- Muscarine and M. nitrate
- *Pilocarpine and its salts

SWEATING, EXCESSIVE.

- Acid. salicylic.
- *Oleate of zinc, in powder

SYPHILIS.

- Berberis aquifolium
- Caroba
- Cascara amarga
- *Comp. fl. ext. of stillingia
- Grey oil
- Jacaranda lancif.
- Jurubeba
- Manaea
- Mercuric benzoate
- „ carbolate
- „ salicylate
- Mercurous tannate
- Mercur-thymol acetate
- Mercury amido-propionate
- Mercury imido-succinate
- Mercury formamide
- *Oleate of mercury
- *Peptoglutine sublimate
- Stillingia
- Tayuyá (*root*)

TESTS.

- Phenyl-hydrazine (urine)
- Tri-chlor-acetic acid (urine)

TETANUS.

- Nicotine
- Physostigmine and its salts

THROAT—diseases of.

- Aldehyde (in congestion)

TONIC—bitter.

- Berberine

TONIC, bitter—*continued*.

- Bonduc
- Cedron
- Conchalagua
- Coptis teeta
- C. trifoliata
- Lupulin
- Quassin
- Zanthorrhiza

TONIC—general.

- Aletris farin. (uterine)

*Coca

- Cocaine and salts
- Cundurango (alterative)
- Ferri Lactate
- Menispermine (alterative)
- Ferri albuminas
- Oleate iron (external)

„ quinine

- *Prunus virgin. (also nerve-sedative)
- Rhus glabra (astringent)
- Statice caroliniana (astringent)

TOOTHACHE (from nerves).

*Gelsemium

URINE—incontinence of.

*Rhus toxicodendron

UTERUS—diseases of.

See Parturition.

VOMITING of pregnancy.—Iridin.

WARTS.

- Celandine
- Cashew nuts
- Cotyledon umbil.
- Salicylic acid

WHOOPIING-COUGH.

- *Bromoform
- Chestnut leaves
- *Grindelia robusta
- Hydrogen peroxide

WORMS.

Ascarides.

- Ammonium embelate (taenia)
- Asarum canadense
- Sodium santonate
- Corsican moss

Lumbrici.

- Sethia acum.

Tenia.

- Geoffroya (Andira)
- Kosine, Kousseine
- *Pelletierine and its salts
- *Pumpkin (*seeds*)

BURROUGHS, WELLCOME & CO.

LIE REC

No.

RECENT

M A T E R I A M E D I C A.

Acetal.

Ethereal colourless liquid, of acrid, burning taste. Slightly soluble in water. Hypnotic depressant. Dose, 1 to 3 drachms.

Acetanilid. C_8H_9ON or $C_6H_5NHC_2H_3O$. *Phenyl-acetamide*. *Antifebrin*.

This substance, made by Gerhardt in 1853, and reported on therapeutically by Kussmaul, of Strasburg, in 1836, is derived from Anilin, to which it is chemically closely allied. A. Cahn and P. Hepp investigated its properties, and said, "We would wish to term it Antifebrine."

CHARACTERISTICS. Pure white, crystalline powder or moderately large rhombic plates, of a somewhat fatty feel and silky lustre, slightly burning to the tongue. Scarcely soluble in cold, more readily in hot water, 1 in 56 parts; easily in alcohol and wine.

"Obtained by the action of Glacial Acetic Acid on Aniline and subsequent purification."—Add. to B. P., 1890.

Melts at $113^{\circ} C.$; has neither acid nor basic properties.

THERAPEUTICS. Lowers temperature 1° to $5^{\circ} F.$ in fevers, as typhoid, pneumonia, erysipelas, and acute rheumatic gout. Safe even in large doses (15 grains in 24 hours). Usual dose, 3 to 10 grains.

It is useful in controlling almost every kind of nerve pain.

Formula for Rheumatism :

Antifebrin	...	...	...	...	1 drachm.
Brandy	...	...	...	...	$4\frac{1}{2}$ ounces.
Dissolve, and add—					
Distilled water	...	...	...	...	6 drachms.
Simple Syrup	...	...	...	...	6 „

"One teaspoonful as required."—H. Helbing.

Dose, 3 to 10 grains, once, twice, or at most thrice a day; or 4 grains, six to eight times a day, for three days, in acute cases.

ACETANILID—*continued.*

“Doses of 3 grains a day have benefited epilepsy, with slow feeble circulation.”—Bartholow, *Coll. and Clin. Rec.*

Acetphenetidim. (*See Phenacetin.*)

Achillea Millefolium. *Yarrow. N. Europe. N. O. Compositæ.*

A hairy plant with corymbs of whitish flowers. Contains amorphous bitter, Achilleine, and volatile oil. A bitter, aromatic tonic, with emmenagogue properties. Dose, 1 drachm in infusion.

Acid Anisic. *Methylic Ether of Para-oxy-benzoic Acid.* $C_6H_4(O.CH_3)COOH$.

Colourless crystals, scarcely soluble in water, but soluble in alcohol.

Antiseptic and anti-rheumatic; *Sodium Anisate* is soluble, and can be given like, but in larger doses than, *Sodium Salicylate*.

Acid Aseptic. *Asceptic Acid.*

A 5 per cent. solution of hydrogen peroxide containing in 1000 parts, 5 boric acid with or without 3 parts of salicylic acid.

Acid Bromohydric, or Hydrobromic. *HBr in solution.*

Introduced by Dr. Milner Fothergill. Without colour or odour, very sour. Used as a sedative. Dose of the diluted acid of official strength, $\frac{1}{2}$ to 1 drachm, well diluted. Often allays cough. Strength about 8 per cent. HBr. The concentrated, sp. gr. 1.308, one part to three of distilled, gives the dilute acid of official strength.

Acid Camphoric. $C_8H_{14}(COOH)_2$.

In colourless acicular crystals, soluble in alcohol. Soothes the inflamed bronchial mucous membrane; also topically in skin diseases. Against the night-sweats of phthisis, it is given in 15-grain powders several times a day. In Germ. Pharm. (1890 Add.). Also used in $\frac{1}{2}$ per cent. and 2 per cent. solutions.

Acid Cathartic. *Acid Cathartic. From Alexandrian Senna. N. O. Leguminosæ.*

An amorphous brown powder with little taste, and soluble in water. Purgative without nausea or griping. Dose, 2 to 4 grains in pill. The pure, so prone to decomposition, is not now made.

Acid Cetraric; Cetrarin. *From Cetraria islandica. N. O. Fungi.*

A stimulant to nervous system. White, bitter, crystalline powder, soluble in alcohol. In chlorosis; dose $1\frac{1}{2}$ to 3 grains, internally, daily.

Acid Chrysophanic. (*See Chrysarobin.*)

Acid Cinnamic. $C_9H_8O_2 = C_6H_5 \cdot CH \cdot CN \cdot COOH$.

Oil of Cinnamon, by oxidation, is converted into Cinnamic Acid—

Cinnamyl hydride, the chief

constituent of oil of Cinna- =

Cinnamyl hydrate or Cinna-

mon, $C_9H_7 \cdot OH + O$

mic Acid, $C_9H_7O \cdot HO$.

A powerful antiseptic; inodorous, innoxious, soluble in alcohol.

Acid Cresylic, or Cresylic. *Cresol. Cresylol.* $C_6H_4CH_3 \cdot OH$.

In crystals, or white liquid, with smell of creasote, insoluble in water, soluble in alcohol. An antiseptic, more powerful but less toxic than carbolic acid.

Sodium cresylate is also antiseptic.

Acid Dithiosalicilic.

Powerful antiseptic. Its salts only are used.

Acid Filicic. $C_{14}H_{16}O_5$.

If pure, crystalline filicic acid be dissolved in alkalies, and reprecipitated by any acid, the amorphous precipitate so obtained possesses exactly the poisonous properties of the extract; the inactive crystalline body is an anhydride or lactone of the amorphous filicic acid, and is better termed *filicin*. Filicin melts at $184.5^\circ C.$ ($364.1^\circ F.$), filicic acid at $125^\circ C.$ ($257^\circ F.$); the latter is much more soluble in alcohol. Filicic acid appears well adapted for therapeutic use, since it is easily dissolved, held in solution in the intestines, and is only absorbed very slowly, thus effecting the expulsion of parasites, without injuring the organism of the body.

Acid Gymnemic.

Brown crystalline powder. Soluble in alcohol; less so in water. Emetic. Dose, 4 to 6 grs. A 5 per cent. solution is also used to disguise bitters.

Acid Gynocardic. $C_{14}H_{24}O_2$.

Crystallising in plates: Dose $\frac{1}{2}$ to 1 grain. The active principle of Chanlmoogra Oil, *which see*.

Acid Hippuric. $HC_9H_8NO_3$.

This acid, made from horses' and cows' urine, forms salts which are used in gouty temperaments: such are—

Lithium Hippurate $C_9H_8LiNO_3$.

Calcium Hippurate $C_{18}H_{16}CaN_2O_6 + 3H_2O$.

Sodium Hippurate $C_9H_8NaNO_3 + H_2O$.

ACID HIPPURIC—*continued*.

These Hippurates have been used with advantage in gout and gouty rheumatism ; they are supposed to replace Urates in the system, than which they are more soluble and more easily eliminated. Dose, 10 to 15 grains of either of above salts.

Acid Hydriodic. HI in solution.

Useful in asthma where iodine is to be given. Best administered in Syrup. Dose of latter, 1 to 2 drachms in water, before meals.

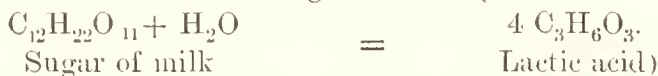
Periodate. The powdered crystals of this substance are without odour or colour, and partly soluble in water. Believed to contain iodic acid, periodic acid and lime. An antiseptic ; recommended for influenza. Dose, 2 to 10 grains.

Acid Hydrofluoric. HF in solution.

A solution of about 25 to 30 per cent. of the gas. The dilute acid contains $\frac{1}{2}$ per cent. of this solution : dose of dilute acid, 15 to 20 drops. Successful in goitre. A spray, 1 to 3 or 10 of water, has been used in phthisis. Fluorine has lately been isolated with great difficulty by M. Henri Moissan : it energetically attacks all known substances. “*Salufer*” or Sodium Silico-fluoride is said to be an efficient non-irritating antiseptic, but dangerous internally.—*Brit. Med. Journ.*, 15-2-90.

Acid Lactic. $C_3H_6O_3$.

CHARACTERISTICS. A sour liquid resembling glycerine or syrup, without odour or colour, containing 75% of Absolute Lactic Acid ; sp. gr. 1.212. Produced by the lactic fermentation of certain saccharine and amylaceous substances, as sugar of milk (thus—



in the presence, either as cause or effect, of the Fungus, *Penicillium glaucum* (Pasteur).

THERAPEUTICS.—Diabetes, &c. ; 1 part to 15 of water is valuable in Diphtheria. Dose, 5 to 15 drops, diluted.

Also successful in severe dyspepsia when irritation is subdued : 15 to 20 minims, in a tablespoonful of water at meal times, to improve tone and power of stomach.

ACID LACTIC—continued.

A spray (20 min. to $\frac{1}{4}$ fl. oz. water) has been used to act on the false membrane of diphtheria.

Dilute or medicinal Lactic Acid consists of 1 part of above acid to 5 parts of water; sp. gr. 1.040.

Lactyltropine is a cardiac tonic, obtained by the action of lactic acid on tropeine.

In Chronic Diarrhoea.—Mixture: Lactic acid, 10 grammes ($2\frac{1}{2}$ fl. drs.); syrup, 200 grammes (5 fl. oz.); distilled water, 800 grammes (27 fl. oz.). Half a wineglassful between meals. (Lactic acid is considered a germicide and a tonic) [*Hayem*].

Acid Osmic. Os_2O_4 . *Acid Hyperosmic.* A pungent acid, from Osmium.

CHARACTERISTICS. Transparent yellow needles, becoming soft on being warmed, and giving off a highly irritating vapour even at the ordinary temperature.

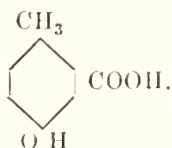
THERAPEUTICS. A hypodermic solution (5 to 10 drops of a 1 per cent. solution of the crystals) daily, has been employed by Prof. Billroth, of Vienna, in sciatic neuralgia, injected into the subcutaneous tissue. Alternate with it, an injection of Morphia Hydrochlor. $\frac{1}{4}$ grain, Atropia $\frac{1}{150}$ grain.

Potassium osmate, $\text{K}_2\text{OsO}_4 \cdot 2\text{H}_2\text{O}$. In pure crystals, soluble in water, in pills of $\frac{1}{50}$ grain each, in epilepsy.

Osmic Acid is reported not to harm, although it irritates and darkens the outer cuticle. The solution must be protected from the light, as it darkens by age. Formerly used only for microscopic work, to blacken fatty tissue.

Acid Oxynaphthoic Alpha. $\text{C}_{10}\text{H}_7\text{OHCOOH}$.

Obtained by the action of carbonic acid on an alkaline salt of a naphthol. Colourless crystals, soluble in alcohol but not in water. A toxic antiseptic; used for scabies, in a 5% ointment.

Acid Paracresotic.

From Cresols, ortho, meta and paracresotic acids are obtained. Sodium Cresotate was used fifteen years ago.

ACID PARACRESOTIC—*continued*.

Paracresotic acid is non-toxic; it is a crystalline, bitter powder, soluble in warm water. *Sodium Paracresotinate*, or *para-cresotate*, is a fine crystalline yellowish powder, with a sour taste; is soluble in 24 parts of warm water. It is an antipyretic in fevers, similar in action, but said to be superior to Salicylate of Sodium.

Dose:—Child, $1\frac{1}{2}$ to 6 grains. Adult, 15 to 50 grains.

Prof. Fraser recommends 20 grains every two hours.

Cresolol, or *Cresol Salicylate*. A crystalline insoluble powder, used as an intestinal antiseptic: *see page 74*.

Acid Phenylacetic. *Alpha-toluic.* $C_6H_5CH_2COOH$.

Lustrous crystals with strong disagreeable taste and smell. Soluble in alcohol or hot water; less soluble in cold water. Antiseptic, anti-tubercular. (Phthisis, typhoid fever, &c.) Dose, 1 to 3 grs. three times daily in water.

Acid Phenylpropionic. *Hydrocinnamic acid.* $C_6H_5(CH_2)_2COOH$.

White needle crystals, with aromatic odour, soluble in alcohol. In consumption, 1 to 3 grains, or in 10 minim doses of a 1 in 6 solution in alcohol, well diluted.

Acid Salicylic. $C_7H_5O_3$.

Used now, made up in a plaister, for epidermis thickened by disease, to be applied and not removed for several weeks. Salicylic acid has a peculiar solvent action on epidermic tissue.—*Brit. Med. Journ.*, 1884, page 602. Its action on corns (combined with Indian hemp) is owing to this property. Useful for excessive sweating.

Diiodosalicylic and Iodo-salicylic acids. Crystalline powders, soluble in alcohol; antifebrifuge, in doses of 10 grains.

Dithiochlorsalicylic acid is a substitute for iodoform.

Acid Salicyl-sulphuric. *Sulphosalicylic or Salicylsulphonic acid.*

White crystals. Soluble in water or alcohol. Test for proteids, urine albumen, &c.

Acid Sclerotic, or Sclerotinic. *The active ingredient of Ergot, according to Dragendorff.*

CHARACTERISTICS. Tasteless, odourless, and feebly acid, contained (1.5 to 4.5) combined with Lime in Ergot; a pale coloured powder, so hygroscopic that it should be preserved in absolute alcohol.

ACID SCLEROTIC—*continued*.

THERAPEUTICS. Has properties of Ergot, *i. e.* oxytocic and hæm o - static. Alkalies decompose it. Dose, 2 to 5 grains produce strong uterine contractions: hypodermically, strength of injection, $\frac{1}{2}$ grain of acid in 60 minims of water.

Acid Sulphanilic. $C_6H_4.NH_2.SO_3H$.

Aniline dissolved in sulphuric acid. Brilliant rhombic crystals, soluble in 115 parts of water. In acute catarrh, in doses of $\frac{1}{2}$ to 1 drachm daily, dissolved in water with sodium carbonate.

Acid Thioacetic. $CH_3.C:O(SH)$.

Yellowish fluid with pungent odour, soluble in water.

Ammonium thioacetate, in a 30 per cent. solution, has been used as an arsenic-free substitute for sulphuretted hydrogen in analysis.

Acid Tri-chlor-acetic. CCl_3COOH .

Large deliquescent crystals. A test for albumen in urine: 10 m. of a solution (1 in 2 water), added to urine in a test-tube, shows opalescence or a precipitate of albumen.

"I can speak very highly of its results."—Dr. Tirard, *Lancet*, 21-3-91.

Also used to destroy corns and warts.

Aconitine Nitrate.

Has been used in neuralgia, especially of the fifth pair. Dose, $\frac{1}{40}$ grain in solution, increasing to $\frac{1}{12}$ grain.

Aconitum Ferox. *Bish. India. N. O. Ranunculaceæ.*

This plant grows on the Himalayas, and is very potent.

Internally for pneumonia and pleurisy; externally for neuralgia.

Tincture (1 in 10); dose, 1 to 3 minims.

A. heterophyllum is the Indian non-toxic tonic tincture (1 in 10); dose, 10 and 60 minims; *A. Fischeri* is the Japanese aconite.

Aconitum septentrionale yields the alkaloid *Septentrionaline*, a sensory paraly sant and antitetanic.

Adansouia Digitata. *Baobab tree. Africa. N. O. Sterculiaceæ.*

One of the largest known trees. Bark is employed in the fevers of the West Coast of Africa, as a diaphoretic tonic. Dose, 1 ounce to pint of water, as an infusion, to be taken in one day. The pulp of the fruit is used for dysentery.

Adeps Lanæ. *Wool-fat.* The purified cholesterin fat of sheep's wool.

Known to ancients as "Æsipum." A mixture of Cholesterin fats: exists in hair, blood, bile, gall-stones, and is found abundantly in wool-grease. *Adeps Lanæ* is anhydrous Lanolin.

CHARACTERS AND TESTS. A yellowish tenacious unctuous substance; almost inodorous; with a melting-point varying from 100° F. (37·8° C.) to 112° F. (44·4° C.); readily soluble in ether and in chloroform, sparingly soluble in rectified spirit.—Add. to B.P., 1890.

Adeps Lanæ Hydrosus. Hydrous Wool Fat, or Lanolin, contains about 30 per cent. of water.

CHARACTERS AND TESTS. Yellowish white; free from rancid odour. When heated it separates into an upper oily and lower aqueous layer.

Preparation in which hydrous wool fat is used. *Unguentum Conii.* Add. to B. P., 1890.

Liebreich observed that "it absorbs over 100% of water." Its peculiar property is that it is more readily absorbed by the skin than lard or petroleum jellies.

Lanichol and *Lamolein* are purified wool fats.

Adhesol.

Mixture of copal resin (35), gum benzoin (3), balsam tolu (3), ether (2), oil thyme (2), surgical dressing.

Adiantum Capillus Veneris. *Maidenhair, Europe. A. pedatum, N. America. N. O. Filices.*

These beautiful ferns contain a bitter principle, tannic acid, and mucilage, and in doses of a drachm, in infusion, are used as a tonic demulcent, especially in France, under the name of *Capillaire*.

Adonis Vernalis. *Europe. N. O. Ranunculaceæ.*

A herb with large yellow flowers. It increases the action of the heart, like *Digitalis*. Dried leaves have been used on the Continent as a drastic purgative. Dose: infusion to 1 ounce; conc. infusion (1 to 7), up to 1 drm.; tincture 10 to 60 drops; fl. ext. 3 to 6 drops.

ADONIS VERNALIS—continued.

Adonis vernalis has similar properties.

Adonidin. Glucoside; active principle of *Adonis Vernalis*.

Amorphous, odourless, bitter powder; similar in effects and dose to Digitalin, but more active, without emulative action. Soluble in water and alcohol, insoluble in ether and chloroform. It is good in weak and dilated heart, $\frac{1}{10}$ grain three times a day.

“A cardiac tonic with little, diuretic action.”—*Lancet*, 24-11-88.

The *tannate* is a yellowish powder, soluble in alcohol.

Ænanthe Phellandrium. (*Lamk.*) *Phellandrium aquaticum*. *Water-fennel*; *Water-dropwort*. *Europe*. *N. O. Umbelliferae*.

The aromatic small brown fruit, containing about 1 per cent. of volatile oil, is used as a carminative to quiet coughs, allay restlessness, and give expectoration. Dose, fluid extract, 5 to 20 minims. French Codex, 1884.

Æsculus Hippocastanum. *Horse-chestnut*. *N. O. Sapindaceæ*.

The fixed oil, extracted from the large seeds by ether, is used for rheumatism. Leaves for whooping-cough, and seeds for hæmorrhoids. *Æsculin* ($C_{21}H_{24}O_{13}$) much resembling Fraxin from the bark of the Ash, is the bitter crystalline glucoside from the bark. For periodic neuralgia. Dose, 15 grains, twice daily.

Æthoxycaffeine. $C_8H_9(OC_2H_5)N_4O_2$.

Administered in doses of 4 grains in cases of migraine, or headache.

Agaric; Polyporus Officinalis. *White Agaric*. *Not indigenous*. *N. O. Fungi*.

In white spongy pieces. A powerful cathartic, given in hectic night sweats. Dose, 5 to 30 grains; tincture 1 in 10 proof spirit. Dose, 20 to 60 minims; fluid ext., 5 to 30 minims. An important factor in the good effects of “Warburg’s Tincture.”

Sticta pulmonaria, Oaklungs or Lung-wort, is a lichen used in phthisis.

Agaricin. *Agaricic or Laricic Acid*. $C_{14}H_{27}(OH)\begin{matrix} \diagup COOH. \\ \diagdown COOH. \end{matrix}$

White crystalline powder, slightly soluble in water. The active principle of above with similar effects. Agaricin contains about 96% of Agaricic acid. Dose, $\frac{1}{10}$ to $\frac{1}{2}$ grain in pill at night. Checks cough, promotes sleep, and restrains perspiration.

Agariens Muscarius. *Amanita Muscaris*. *Fly Fungus*. *N. O. Fungi*.

A poisonous intoxicant, used as the latter by the Tartars. It contains the narcotic alkaloid Muscarine (*which see*).

Agathin. *Salicyl - alpha - methyl - phenyl - hydrazone*. $C_6H_4(OH)CO.H.N.N(CH_3)C_6H_5$.

Introduced by Roos, of Frankfort. In white flakes, without taste or odour; soluble in alcohol, but not in water; melts at $161^{\circ}F$. Anti-rheumatic and anti-neuralgic. In severe neuralgia, sciatica, &c., this analgesic has had success; its action shows in a few days. Dose, 5 to 10 grains several times a day.

Agrimonia Empatoria. *Agrimony*. *Europe*. *N. O. Rosaceæ*.

A herb about two feet high with yellow racemes; it contains tannin, and is a tonic astringent in doses of 1 drachm in infusion.

Airol. $C_6H_2(OH)_3CO_2BiOH$.

Airol is a gallate of the subiodide of bismuth. It is a greyish-green and exceedingly voluminous powder, free from odour and taste, and unaffected by the action of light. Unaltered in dry air, the presence of moisture effects a very gradual reduction to a more basic and reddish bismuth compound, with liberation of iodine and gallic acid. Airol is insoluble in water, alcohol, ether, but soluble in dilute mineral acids. Ointments can also be made with vaseline and anhydrous fats, and suppositories with cocoa butter. The serous fluids from wounds and moist surfaces upon which it is dusted, are supposed to bring about the gradual liberation of small quantities of iodine and gallic acid. Airol is antiseptic, free from toxic and irritant properties, astringent and desiccative in its action, and as a dusting powder for wounds, etc., on account of its lightness, covers four times as much surface as an equal weight of iodoform.

Ajowan. *Ptychotis (Carum) Ajowan*. *India*. *N. O. Umbelliferae*.

Small seeds; their vol. oil, about 5 per cent., smelling of thyme, yields a stearoptene—about 35 per cent.—identical with thymol.

THERAPEUTICS. Carminative tonic, used for colic and cholera. The oil externally for rheumatism. Dose of the oil, 1 to 3 drops on sugar. Under the name "Ammi Officinal," in French Codex, 1884.

Alantol. $C_{20}H_{32}O$. *Inulol*.

A liquid stereoptene found in Elecaupane root. A yellowish, oily liquid of peppermint-like odour and taste. Soluble in alcohol. Given in tablets of 1·6 to 1·3 of a grain each, every hour or two, as an antiseptic and also for chronic bronchitis and phthisis.

Alantic acid. $C_{15}H_{22}O_3$. White crystals, soluble in alcohol, insoluble in water, but forming soluble salts. Antiseptic like Helenin. Both the above are found in *Inula helenium*.

Aldehyde. C_2H_4O . $CO(CH_3)H$.

Alcohol, oxidised, becomes Aldehyde. Diluted Aldehyde is a solution of 15 per cent. in alcohol. Used in congestion of the throat, quickening respiration. Is also anti-putrescent.

Aletris Farinosa. *True Unicorn, Colic Root, Blazing Star. America. N. O. Hamodoraceæ or Liliaceæ.*

A perennial with a spike of white flowers: the rhizome is mealy, bitter, and odourless. A cordial or elixir is made from it. *Aletrin* is the bitter principle, soluble in alcohol. Dose, 1 grain.

Helonias dioica, or False Unicorn, has been substituted. *Alnus rubra*, Tag or Red Alder: the bark is used; its resinoid is *Alnuin*. Dose, 1 to 3 grains.

THERAPEUTICS. A tonic bitter in uterine diseases. Dose of tincture (1 in 8 proof spirit), 1 to 2 fluid drachms. Dose of powder, 10 grains: fluid extract, 10 to 20 minims.

Aleurites Triloba. *Tropics. N. O. Euphorbiaceæ.*

Kernels rich in an oil, which is a mild cathartic, like castor oil, without smell or disagreeable taste, in same dose, with the flavour of the hazel-nut. Nuts, strung on fibres, are used in Pacific Islands as candles. The oil is produced in the Sandwich Islands.

Algine.

Is a mucilaginous substance, resembling gum arabic, and obtained from *Laminaria stenophylla* and *Laminaria digitata*, by treating seaweed with a boiling sodium carbonate solution, which dissolves the alginic acid in the form of sodium alginate, leaving the cellular tissue

ALGINE—*continued*.

as a residue. Similar to gelatin, but it differs by not coagulating to a jelly, and by not being precipitated by tannin. Its solutions are very viscid, and it may be well used to emulsify oils and clarify wines.

Alkannine.

An extract derived from alkanet; employed in the colouring of greasy substances and oils—hair-oils, pomatum, &c.

Allyl Tribromide. *Tribromhydrin.* $\text{Br}_3\text{C}_3\text{H}_5$.

Formed by action of Iodide of Allyl with Bromine. Colourless or slightly yellowish liquid. Soluble in ether. Sedative, anodyne (hysteria, asthma, whooping-cough, &c.). Dose, 5 drops three or four times daily. Inj.: 2 to 4 drops dissolved in ether. In capsules of 5 drops each in asthma and hysteria, as an antispasmodic.

Aloin. *From Aloes. That from Barb. Aloes is* $\text{C}_{17}\text{H}_{15}\text{O}_7$ *or* $\text{C}_{17}\text{H}_{20}\text{O}_7$. *Cape Aloes does not yield Aloin (Maisch).*

Bitter crystalline principle; hardly soluble in cold water, easily in hot water and alcohol.

THERAPEUTICS. Internally in pills, with sulphate of iron or soap; dose $\frac{1}{2}$ to 2 grains. Used for enemas, 1 part to 25 parts of warm water.

Alphaoxynaphthoic Acid. *Alpha-naphthol-carbonic Acid.*

Produced by heating sodium alphanaphtholate in a current of CO_2 and treating with a mineral acid. A white odourless powder of pungent taste, very slightly soluble in cold water; soluble in aqueous solution of bicarbonates of alkalies or of NH_3 , in alcohol, ether, chloroform, glycerine, and the fatty oils; antiparasitic and antizymotic. Used in 10 per cent. ointment.

Alphol.

Alphol is the salicylic ether of alphanaphthol, and an isomer of Betol (the salicylic ether of beta-naphthol). It is obtained by heating to 120° — 130° C. (248° — 266° F.) a mixture of sodium salicylate, sodium alphanaphtholate, and phosphorus oxychloride; this resulting in the formation of alphol, sodium phosphate, and sodium chloride.

ALPHOL—continued.

Therapeutically, alpol is said to resemble salol. By the action of the pancreatic and intestinal juices, alpol is split up into salicylic acid and alpha-naphthol. It is reported to have given good results in gonorrhoeic cystitis and acute articular rheumatism; and it has also been employed as an antiseptic and antineuralgic, like most of the compounds of naphthol. The ordinary dose ranges between 8 and 15 grains, which may be increased to 30 grains.

Alstonia Constricta. *Queensland Fever Bark; Australia. N. O. Apocynaceæ.*

Pale buff-coloured bark, with darker exterior, spongy and friable, with little odour but a very bitter taste.

THERAPEUTICS. A remedy in fever, resembling the action of quinine with nux vomica. It is an antiperiodic, and an antiseptic stimulant nerve tonic. (The alkaloid is *Alstonine* or *Chlorogenine*.) Dose, 5 grains of powder; in colds, 2-grain doses of powder every two hours; tincture (2 ounces to pint of proof spirit), dose $\frac{1}{2}$ to 2 drachms, fl. ext. 2 to 5 drops.

Alstonia Scholaris. *Dita Bark. Philippines, India.*

Rough, spongy, buff-coloured bark; it is reputed in India a good tonic antiperiodic, and its milky juice has similar properties to india-rubber. Its crystalline alkaloid is *Ditamine*. In French Codex, 1884. Dose of tincture (1 in 10 proof spirit) 1 drachm; fl. ext. 5 to 10 drops. [Conessi bark, India, from *Wrightia antidysenterica*, in same N. O., has similar properties.]

Aluminium Aceto-tartrate.

Faintly yellowish granules, with acid, astringent taste; slowly soluble in water. Astringent, disinfectant, in nasal and laryngeal affections. Apply in $\frac{1}{2}$ to 2 per cent. solution, or as snuff, with two parts of boric acid.

Aluminium Boroformate.

Aluminium boroformate is a disinfectant and astringent, and is in shining pearl-like crystals, readily soluble in water. Used in place of alumnol, aluminium acetate, and analogous preparations, being mild and reliable in its action, and therefore adapted for application to children, and in throat affections.

Almmol.

Is the name given by Dr. R. Heinz, of Breslau, to the aluminium salt of an aromatic sulphonic acid, probably oxymethyl-sulphonic acid. It is easily soluble, non-hygroscopic, antiseptic and astringent, and, unlike the salts of the heavy metals, penetrates the tissues. Recommended in gonorrhœa, in 1 to 2 per cent. solution, in suppurating wounds, skin diseases, &c.

Alvelós. *Probably from Euphorbia heterodoxa, Brazils, S. America. N. O. Euphorbiaceæ.*

The caustic, milky juice has been used in the Brazils for cancerous ulcers. A profuse suppuration (as with Jequirity) follows its application to a granular surface. It is a powerful escharotic, with a dissolving caustic effect upon organic tissues. Apply with a brush, painting the cancer, and dressing with vaseline containing boric acid.

Amido-Eugenol Acetate. $C_6H_3 \cdot OCH_3 \cdot C_3H_4NH_2 \cdot OC_2H_5O$.

A fine powder, prepared by the action of ammonia in an alcoholic solution upon eugenol-aceto-ethylic ether. It is a local anæsthetic to mucous membrane.

Amidol.

A photographic developer, which can be used in a sulphite solution alone. Use: dilute the following stock solution with three or four times its bulk of water:—Distilled water, 1000 parts, Sodium sulphite cryst. 200 parts, Amidol 20 parts.

Aminol.

Aminol is a preparation claimed to be the aqueous solution of a gas possessing antiseptic and deodorising properties, and is used for profuse diarrhœa, tonsillitis, stomatitis, &c. A colourless, slightly turbid liquid, possessing the odour of trimethylamine, and strongly alkaline to test paper. Chemical analysis showed that each litre contains: calcium oxide 1.52 gm., sodium chloride 3.516 gm., and trimethylamine 0.289 gm.

Ammonium Camphorate. $C_{10}H_{15}O_4NH_4$.

A combination of ammonia and camphoric acid. White hygroscopic crystals, easily soluble in water. Given in 2-grain tablets as a sedative.

Ammonium Formias.

A chemical homologue of Ammon. acetate, formic acid being a derivative of methyl, as acetic acid is of ethyl. Used in chronic paralysis with general torpor. Dose, 5 grains.

Ammonium Molybdate. $(\text{NH}_4)_6\text{Mo}_7\text{O}_{24}4\text{Aq.}$

In large monoclinic prisms, used as a delicate test for phosphoric acid. *Molybdic acid*, a white, crystalline powder, sparingly soluble in water, is an oxide of Molybdenum, and is prepared from the rare, silvery-white metal Molybdenum, found in iron, copper, and lead ores.

Ammonium Persulphate. $(\text{NH}_4)_2\text{S}_2\text{O}_8.$

Small colourless crystals which form a cloudy solution with water. The solution, on being heated, develops active oxygen (Ozone). According to the observations of Lennard Wacker, ammonium persulphate in a 0.5—2 per cent. solution is an effective disinfectant.

Ammonium Picrate. $\text{C}_6\text{H}_2(\text{NH}_4)(\text{NO}_2)_3\text{O.}$

It is in small brilliant crystals, of a beautiful orange colour; soluble in water and rectified spirit; very bitter, and colours urine orange.

Febrifuge in intermittent fevers; it has been used with much success in India: H. Martin Clarke, *Lancet*, Feb. 19th, 1887. Dose, $\frac{1}{2}$ grain 4 times a day.

Carbazotic or picric acid, which is Tri-nitro-Phenol, $\text{C}_6\text{H}_2(\text{NO}_2)_3\text{OH}$, is a delicate test for albumen, and has been used in lupus as a dusting powder, and also in a 5 to 10 per cent. vaseline ointment.

Ammonium Salicylate. $\text{NH}_4\text{C}_7\text{H}_5\text{O}_3.$

Colourless monoclinic prisms, easily soluble in water.

Goll pronounces this salt a better expectorant than senega or quillaja. It is administered in wafers owing to its disagreeable taste.

Ammonol. *Ammoniated phenylacetamide.*

It occurs in amorphous crystals, having a pale yellowish colour, is strongly alkaline in reaction, and has a pungent ammoniacal taste and odour.—Stimulant, antipyretic, expectorant, and analgesic. Dose, 5 to 20 grains.

Ammonol Salicylate.

In the treatment of rheumatic and gouty affections ammonol salicylate, given in doses of 10 to 20 grains, stimulates the eliminative process, and at the same time relieves the pain. Ammonol lithiate, Ammonol bromide, and Ammonol peptonate are also employed.

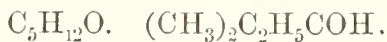
Amygdophenin.

A greyish-white light crystalline powder, little soluble in water.

It is a paramidophenol derivative in which one of the hydrogen atoms of the amide group is replaced by an ester of amygdalic acid, and the hydrogen atom in the hydroxyl group is replaced by ethyl carbonate. It was first prepared by Hinsberg and Blum, and has been commended as an anti-rheumatic by Dr. Stüve, of Frankfort (*Wien. med. Presse*), who administered it in doses of 15 grains from one to six times daily, in a powder or tablet.

Ampelopsin. *From Ampelopsis quinquefolia. American Ivy.*

An eclectic resinoid or concentration. Dose, 2 to 3 grains.

Amylene. *Amylene Hydrate. Dimethylethyl carbinol.*

"A tertiary Alcohol,"—Wurtz.

"Methyl-Isopropyl-Carbinol, which is a secondary alcohol."—Fownes.

Limpid, colourless, hygroscopic liquid, with penetrating ethereal odour resembling camphor and peppermint, soluble in water (1:12) and alcohol, and boiling at about 218° F.

THERAPEUTICS. Anodyne, hypnotic: of more pleasant taste than Paraldehyde: 1 drachm, especially in mental diseases, produces sleep for six or eight hours. Whooping-cough in children: 3 to 4 minims. To be given in sweetened water.

Weaker than chloral hydrate, but stronger than Paraldehyde.

"Does not disturb digestion."—Dr. von Mering, of Berlin.

"Best results in epilepsy from its use."—Dr. Wildermuth.

Anacahuite. *Cordia Boissieri. South America. N. O. Cordiaceæ.*

A hard wood, used on the continent of Europe in phthisis.

Anacardium Occidentale. *Cashew Tree, West Indies. N. O. Anacardiaceæ.*

Reniform fruit, each containing a pale brownish-grey seed. The pericarp contains the white, oily, acrid, poisonous vesicant Cardol, used for corns and warts. The oily seeds are edible and non-toxic. Tincture 1 in 10 rectified spirit; dose, 2 to 5 drops.

A. orientale, or *Semecarpus anacardium*, East Indies, has similar properties.

Anagræum Fragrans. *Faham. N. O. Orchidaceæ.*

An orchid, growing in Bourbon (Réunion). The fragrant leaves are used on the Continent in tisanes. In French Codex.

Analgen. *Oxyethyl-benzoyl-amido-quinoline. C₉H₅.OC₂H₅.NHCOC₆H₅.N.*

Colourless crystals, insoluble in water, soluble in hot alcohol; it is a powerful analgesic and antineuralgic. Dose $7\frac{1}{2}$ to 15 grains in wafers, several times a day; it colours the urine red.

Anemonin. *C₁₅H₁₆O₆. From Pulsatilla nigricans or Anemone pulsatilla. Europe. N.O. Ranunculaceæ. (Fr. Coquelourde.)*

The neutral poisonous principle. White crystals, resembling camphor; one of its German names being "Pulsatillencampher." For dysmenorrhœa. Dose, $\frac{1}{50}$ to $\frac{1}{10}$ grain. For leucorrhœa, catarrh, &c., and to soothe painful states of the uterus.

In doses of 2 to 4 centigrammes per day, its anti-catarrhal effects and its action on the nervous system are manifested.—*Pharm. Journal*, vol. xvi, p. 365.

Anemone Hepatica is the tonic, demulcent, European Liverwort.

Angelica. *Archangelica officinalis. Europe. A. atropurpurea. United States. N. O. Umbelliferaæ.*

Aromatic, wrinkled wood-stock, containing volatile oil and resin. Dose, $\frac{1}{2}$ drachm as a carminative stimulant. Leaves also used in America.

Anilin. *C₆H₅.NH₂. Amidobenzene. Phenylamine.*

Recommended in epilepsy. Dose: 1 grain thrice daily, with an additional grain on the occurrence of any prodromata of a paroxysm. The sulphate has been used as an internal cancer remedy. Dose, 0·1 gramme increased to 0·8 gramme daily.

Aniline Camphorate. $(C_{10}H_{16}O_4(C_6H_5NH_2)_2)$.

A salt of Aniline and Camphoric acid. White or reddish crystals, soluble in about 30 parts of water, in 10 of glycerine. Very soluble in alcohol or ether; decomposed by chloroform, carbon disulphide, and fatty oils.

Animal Extracts or Preparations from Animal Organs.

THYROID GLAND. For myxœdema, that disease so named by Dr. Wm. M. Ord, principally in females, where the tissues are invaded by a jelly-like mucus and the thyroid gland degenerates, the suggestion of Dr. G. R. Murray, of Newcastle, England, that the thyroid gland of a healthy animal be used, has been attended with marvellous results. A glycerine extract of sheep's thyroid, composed of equal parts of thyroid juice, glycerine, and $\frac{1}{2}$ per cent. solution of carbolic acid is used, one entire gland yielding $1\frac{1}{2}$ fluid drachm of extract, which is to be injected in 5 to 15 minim doses, two or three times a week, beneath the loose skin of the back. Also internally, without the carbolic acid, 5 to 10 minims of the thyroid extract in water, fasting, daily. This treatment is lengthy, but generally successful.

Thyroidium is the name given to a preparation of the thyroid gland in a dry form. The preparation appears as a coarse, greyish-yellow powder of a characteristic odour. Nine grains of this powder is said to represent a whole large fresh thyroid gland. The dose is given as from $1\frac{1}{2}$ to $4\frac{1}{2}$ grains.

Thyraden is a concentrated extract of the thyroid gland.

Thyroautitorin is the crystalline substance, believed to be $C_7H_{11}N_3O_5$, from thyroid extract, after removal of the albuminoids (Fränkel).

Thyreiodine is a body isolated from the thyroid gland, containing 9 per cent. of iodine and phosphoric acid equal to 0.5 per cent. of phosphorus (G. Baumann).

RED BONE MARROW. From the large bones of oxen and sheep; severe cases of chlorosis and anemia have been much benefited by it. An extract of the fresh or of the desiccated (as prepared by Armour) in glycerine is administered in doses of 1 to 2 drachms three times a day.

It certainly is indicated in all diseases where hæmoglobin is destroyed and blood-corpuscles are deficient. In pulmonary tuber-

ANIMAL EXTRACTS—*continued*.

culosis, hæmatemesis, malarial disorders, hæmophilia, purpura hæmorrhagica, anæmic headaches, and menorrhagia.

Hun, of Albany, says: "I have recently obtained very rapid and decided improvement in a case of chlorosis to which I administered bone-marrow, although Blaud's iron pills had been taken for a long time previously without decided effect."

Fraser, of Edinburgh, says: "It may be worthy of note that before medicinal treatment had been commenced, and in the earlier periods of treatment, when the patient was receiving large doses of iron and arsenic, the blood-plates were conspicuously deficient in number, while, soon after the administration of bone-marrow had been commenced, a great increase occurred in their number."

Carnogen is an American proprietary glycerine extract of the red marrow of the small bones.

Marrol is a dietetic preparation of ox marrow and hop extract, combined with extract of malt.

SPERMIN (Testicle Juice). This substance exists in the testicles of animals, as bulls, guinea-pigs, and also in fish roes. Orchitic fluid is prepared according to D'Arsonval's directions, with glycerine. Dose: 15 minims hypodermically; 30 minims *per os*. Given in cases of loss of nerve power, impotence, locomotor ataxy, &c.

Dr. Alexander W. Pochl, of St. Petersburg, has found this principle in the form of a phosphate in the thyroid gland, thymus gland, spleen, ovaries, and the blood, as well as in the testes, and believes it to be the product of the retrogressive metamorphosis of albumens (a leucomaine). He looks upon it physiologically as a most powerful intra-organic restorative of the oxidising properties of the blood. He concludes that it should not be regarded as a specific for any particular form of malady, but as a means of promotion of the oxidations in the body.

CEREBRIN. Prepared from the grey matter of the brains of sheep and calves; equal parts of the tissue, glycerine, and $\frac{1}{2}$ per cent. carbolic acid solution. Dose, hypodermically or *per os*: 5 to 20 drops. Also in a dried condition. In chorea, locomotor ataxy, &c.

MEDULLIN, MYELIN, MEDULLADEN. Extract from the spinal cord of sheep; produced, and given in same disease and doses, as Cerebrin (*which see*); also for gout.

ANIMAL EXTRACTS—*continued*.

SUPRA-RENAL GLANDS (of oxen and sheep). In Addison's disease, relaxation of arteries, &c., doses of 3 grains, or 15 drops of the tincture, causes distinct arterial contraction.—*Brit. Med. Journ.*, April 6th, 1895.

PITUITARY BODY (of oxen). This body produces a secretion that gives nutriment to the muscles and nerves; its extract, therefore, ought to relieve distressing neurasthenic conditions.

NUCLEIN is a normal germicidal constituent of blood serum; it has also as a *Nucleinic acid* been obtained from yeast. This name has also been given to an extract of calf's spleen; yellowish white powder, soluble in alkaline fluids. Diagnostic for tuberculosis. Dose, 30 to 45 grs. *per os*; or 15 grs. subcutaneously.

Nuclein in the treatment of tuberculosis. Dr. Reynold W. Wilcox, in a recent number of the *Therapeutic Gazette*, reports at some length the results of his clinical studies of the use of nuclein in pulmonary tuberculosis, his conclusions being summarised as follows: "I believe it to be true, (1) that nuclein is absolutely harmless; (2) that it assists nature in limiting the effects of bacterial invasion; (3) that it offers, in comparison with other 'specific' methods, the best prospects of success in the treatment of pulmonary tuberculosis."

CARDINE is an extract from the ox's heart; its solution, straw-coloured, is prepared with rigid antiseptic precautions. Dose for hypodermic injection is 5 minims; it is a heart tonic of value and a diuretic.

THYMUS GLAND (of calves and sheep). Used in typhoid fever. *Hæmostaticum* is an extract of the thymus gland with 7 per cent. of calcium chloride, made alkaline with *Liquor Sodæ*.

PROSTADEN or **PROSTATEN**. Extract of the prostate glands of bulls. Used in enlarged prostate, in 2-grain doses.

OVARINE, from the ovaries of cows. Employed in ovarian diseases, in doses of 3 grains.

MUSCULINE. From muscles, employed in muscular diseases.

Annidalin. *Dithymol tri-iodide. Thymol Iodide.*

Reddish-brown powder, decomposed by light. Soluble in ether, slightly in alcohol, insoluble in water. Antiseptic application, similar to iodoform or aristol.

Anthion.

Compound consisting chiefly of Potassium supersulphate. Substitute for Javelle water or hydrogen peroxide in photography.

Anthrarobin. *Desoxygalizarin.*

Phenol derivative, allied to chrysophanic acid. Yellowish-white powder, insoluble in water and diluted acids. Soluble in glycerine, in 5 parts alcohol, and in alkaline media. Substitute for chysarobin, in 10 per cent. ointment or solution.

Antifebrin. (*See Acetanilid.*)

Antikamnia.

A white, micro-crystalline, odourless, and tasteless powder, nearly insoluble in water, soluble in alcohol and ether. Antipyretic, analgesic, and anodyne. Dose, 3 to 10 grains, in powder or tablets, taken in water or wine.

Antikol.

A proprietary antipyretic mixture, consisting of 75 parts of acetanilid, 17.5 of sodium bicarbonate, and 7.5 of tartaric acid.

Antinervin.

A mixture of:—Acetanilid, 2 parts; ammonium bromide, 1 part; salicylic acid, 1 part. Relieves nerve pains, reduces fever, with copious perspiration, especially in influenza.

Antinnonin. *Orthodinitro-cresolkalium.*

An insecticide, destroying caterpillars, aphides, &c., when sprayed in a solution of 1 in 500. A reddish paste, soluble in water, and non-injurious to foliage, &c. In $\frac{1}{3}$ -grain doses kills mice. Also a disinfectant.

Antinosine.

Antinosine, the sodium salt of Tetra-iodo-phenol-phthalein, is a blue powder that dissolves readily in water. As a soluble form of Nosophen (*which see*), Antinosine is non-toxic and non-irritant.

Antipyronin. *Sodium polyborate.*

A white soft powder, without taste, quite harmless, and very soluble. Used in keratitis and diseases of the conjunctiva, ulcers of the cornea, &c., blown into the eye frequently. Without damaging the eye, Antipyronin prevents the development of pus in the interior or exterior of the eye.

Antipyrin. (*See Phenazonum*).**Antipyrin and Quinine Valerianate.**

White needle crystals, with odour and taste of valerianate of quinine; very soluble in water and alcohol. Its therapeutic effects are similar to those of valerianate of quinine, and its doses are the same.

Antipyrin Valerianate.

In small, white, square crystals, with odour of valerian, but with little disagreeable taste; soluble in water. Lowers the temperature and diminishes pain. To be used in the same doses as Antipyrin.

Antirheumatin.

Antirheumatin is the name given to a compound of sodium salicylate and methylene blue. It occurs in prisms, of dark blue colour, and soluble in water and in alcohol; its taste is faintly bitter, and somewhat acrid after a while, reminding of salicylic acid. It is recommended for rheumatism in doses of 1—1·5 grains every 2—3 hours in pills.

Antiseptin. *Monobromacetanilide.*

Needle crystals, without colour, taste, or smell. A bromine substitution compound of Acetanilide. For neuralgia and rheumatism in doses of 5 and 10 grains (Martindale). Dose: 1 to 3 grains in one day (A. Schreiber, of Neunkirch).

Antiseptin. *Zinc Boro-thymo-iodide.*

An antiseptic, consisting of the following:

Zinc Sulphate ...	...	...	...	...	...	85 parts.
Boric Acid ...	...	...	...	...	...	10 „
Zinc Iodide ...	...	...	...	...	...	2·5 „
Thymol ...	...	...	...	...	..	2·5 „

Antiseptol. *Cinchonine Iodo-sulphate.*

A brown inodorous powder, containing 50 per cent. of its weight of iodine. Insoluble in water, but soluble in alcohol and chloroform. Used in same proportions and for the same purposes as iodoform.

Antispasmine. *Salicylate of Sodium and Narceine-sodium.*

A whitish soluble powder containing 50 per cent. of Narceine. According to Demme, it proved itself an effective antispasmodic, specially for children, the dosage of $\frac{1}{8}$ gr. to $1\frac{1}{2}$ gr. employed being perfectly innocuous. Antispasmine is indicated for whooping-cough, spasm of the glottis, &c. Formula—

Antispasmin	...	...	...	...	...	15 grains.
Water	...	...	...	...	...	$2\frac{1}{2}$ fl. drachms.

15 drops twice a day in sweetened water.

Antithermin. $C_{11}H_{14}O_2N_2$. *Phenyl-hydrazin-lerulinic acid.*

A substance derived from coal tar, introduced in 1887 by M. Nicot as having properties similar to those of quinine, and, from its constitution, nearly related to antipyrin.

In white crystalline plates, insoluble in water and alcohol. Antipyretic. In pill or powder; dose, 5 grains.

Antitoxins.

DIPHTHERIA. Diphtheria is produced by microbes which plant themselves in the membrane of the throat, and multiply; but, unlike the bacilli of other infectious diseases, they remain obstinately in the same position, neither penetrating the system nor the blood. They secrete a "toxin" of extreme violence, which quickly penetrates the circulation and infects the whole body. However, it has been found that if a very small dose of this toxin be introduced into certain animals, especially the horse, only a feeble reaction is produced. By repeating the operation, with gradually increasing doses, the organism of the animal finally revolts, and becomes not only impervious to the toxin, but destroys it, and from this singular result is due the origin of this new remedy.

An injection of from 5 to 25 cubic centimetres ($1\frac{1}{4}$ — $6\frac{1}{2}$ fl. drs.) of the antitoxin, according to the age of the child and the gravity of the case, is administered in the back below the scapula; and if the child is not better the next day, a similar dose or a somewhat

ANTITOXINS—*continued*.

smaller one is given. It should be remarked that there are various diphtheria antitoxins before the medical public at present—that used by Behring and Kitasato, Klebs' antidiphtherin, Koch's and Asonson's antitoxin.—*Lancet*, 1894, ii, p. 153.

Besides these there are other antitoxins, either in fluid or in dry form; the latter keep indefinitely, such as—

TUBERCULOSIS ANTITOXIN (Koch's) (*which see*).

SYPHILIS ANTITOXIN has been also produced.

TETANIA is a tetanotoxin, being ptomaines isolated from tetanus cases.

ANTICANCERIN is Emmerich and Scholl's cancer serum used in erysipelas.

ANTISTREPTOCOCCIN is a serum similarly used.

ANTIVERENE renders immune to snake-bites (Prof. Fraser, *Brit. Med. Journ.*, 1895, p. 1309).

Apiol. From *Apium petroselinum*, Parsley, South Europe. N. O. Umbelliferae.

This name is now given to an oily green liquid, a peculiar substance contained in the seeds. Dose, 3 to 5 drops, for amenorrhœa. Parsley Camphor, also named Apiol, was formerly obtained in white acicular crystals. *Apiin*, tasteless, is contained in the roots.

Apolin. This name is applied in France to a liquid prepared from the commercial liquid "apiol" by means of caustic alkali and distillation, and used as an emmenagogue in doses of 6 to 12 grains.

Apocodeine.

Is an emetic: Dujardin-Beaumetz recommends it in hæmoptysis, croup, and whooping-cough—subcutaneously, in doses of 0·015 gramme [$\frac{1}{4}$ grain] of the hydrochlorate; whereas, *per os*, the dose is 0·04 gramme [$\frac{2}{3}$ grain].

Apocodeine Hydrochlorate. $C_{13}H_{19}NO_2.HCl$.

An amorphous, yellowish-grey powder, easily soluble in powder.

Dr. W. Murrell has recommended this substance as an energetic expectorant, either internally or hypodermically. Dose internally,

APOCODEINE HYDROCHLORATE—*continued.*

2 to 4 grains per day; hypodermically, 8 to 20 minims of a 2 per cent. aqueous solution.

Apocynum Androsamifolium. *Dogbane. Bitter root. America.*
N. O. Apocynaceæ.

This bitter root is diaphoretic and emetic. Dose of fluid ext. 10 to 60 drops. *Apocynin*, a heart poison like digitalin, is a white crystalline resinoid, soluble in alcohol, not in water. Dose, $\frac{1}{2}$ to 2 grains. *Apocyneïn* is the active principle of above.

Apocynum Cannabium. *Black Indian Hemp. Canadian Hemp.*
N. America.

Long, branched, wrinkled root, containing Apocynin. A powerful emetic and cathartic, diminishing pulse. Dose, tincture (1 in 10 pr. spt.), 5 to 50 drops; fluid ext. 5 to 60 minims.

Apocynin (Can.) eclectic resinoid. Dose, $\frac{1}{2}$ to 2 grains.

Apolysin. *Monophenetidine—citric acid.*

Among antipyretics, Nencki and Jaworski state that a useful combination is that which contains a large number of intact acid groups. This is Apolysin, a crystalline white powder, the most freely soluble of the series. It dissolves in 55 parts of cold water, and in less than 1 part of warm water. There are metallic salts of Apolysin, but it is the combinations with quinine, caffeine, &c., that deserve especial attention. Apolysin is stated to have the following advantages over phenacetin and the other remedies of that group:—(1) It is soluble, and more readily absorbed; its action is therefore quicker and surer. (2) There are no bad after-effects, even when large doses are given.

Apomorphia. $C_{17}H_{17}NO_2$. *Morphia less a molecule of water. (Morphia is $C_{17}H_{19}NO_3$).*

Produced from morphia by heating *in vacuo* with hydrochloric acid; from this hydrochlorate the pure alkaloid is obtained. White, amorphous, turning green on exposure.

Apomorphia Hydrochlorate. $C_{17}H_{17}NO_2HCl$.

Minute, shining, whitish-grey crystals: bitter, and turning greenish on exposure. Soluble in water.

THERAPEUTICS. Hypodermically, a safe, certain, and quick emetic.

Apomorphia Hydrochlorate—*continued*.

Dose, $\frac{1}{10}$ grain dissolved in alcohol and water; or $\frac{1}{4}$ grain by the mouth; generally produces no nausea or bad after-effects; excellent in croup and diphtheria; for cough, in mixture, $\frac{1}{100}$ to $\frac{1}{10}$ grain as a dose.

As a cough sedative and expectorant in bronchial catarrh, $\frac{1}{3}$ to $\frac{1}{2}$ grain in 12 ounces of water; one tablespoonful every two hours.

Official in the British, German, and U.S.A. Pharmacopœias.

Syrup of Hydrochlorate of Apomorphine. B.P.C. Formulary.

Dose, $\frac{1}{2}$ to 1 fluid drachm.

Arachis Hypogaea. *Ground Nut. Africa. N. O. Leguminosæ.*

Cultivated in West Tropical Africa; the seeds are exported to Marseilles, &c., where the nut oil is pressed. The legume, forced back by recurved stem, matures underground.

Aralia Hispidæ. *Dwarf Elder. N. America. N. O. Araliaceæ.*

Emetic and purgative. Dose of fluid extract, 30 minims. [The root of *Aralia nudicaulis* is False or American sarsaparilla, and is an alterative. The legume of *Aralia racemosa* is known as Spikenard; a stimulant expectorant.]

Araroba or Goa Powder. *Andira Araroba. Brazils. N. O. Leguminosæ.*

Produced probably by oxidation of resin; found deposited in the wood of the trunk of this large tree. The powder is very bitter, pale yellow, darkening. For ringworm, psoriasis, and many skin diseases. [Active principle, Chrysophanic acid, *see* *Chrysarobin*.]

Arbutin. $C_{12}H_{16}O_7(C_{23}H_{34}O_{14}?)$. *From Arctostaphylos Uva Ursi. N. O. Ericaceæ.*

A glucoside in white needle-shaped crystals, soluble in 8 parts of water and alcohol; for catarrh of the urinary organs. Non-poisonous. Dose, 15 grains at a time; 45 to 60 grains in 24 hours. *Lancet*, July 21st, 1883. *Uva Ursi* leaves do not contain the poison Andromedotoxin of *Kalmia*, *which see*.

Arctium Lappa. *L. Major or L. Officinalis. Burdock. Indigenous. N. O. Compositæ. (French "Bardane.")*

The seeds and fleshy fusiform root, which contain sometimes 45 per cent. of Inulin (Maisch), have been used with success in some skin diseases, as psoriasis, as an alterative. Dose of tincture (proof spirit; 1 of well-crushed fresh seeds in 10), 2 drachms three times a day; fluid extract, 20 to 60 minims.

Arecoline. $C_8H_{13}NO_2$. From *Areca Catechu*. N. O. *Palmeæ*.

An oily, volatile, colourless liquid, strongly alkaline, soluble in alcohol and water. One of three alkaloids, 0.1 per cent. in the nut; it forms salts as hydrobromate in a 1 per cent. solution as a substitute for Physostigmine, and hydrochlorate. (Another alkaloid is *Arecaïne*; inactive; colourless crystals.)

It is anthelmintic and poisonous, like Muscarin; a heart poison, acting also on intestines, and contracting the pupil of the eye.

Argentamine

Is a solution of Ethylendiamine and phosphate of silver in water, which corresponds in its power with a solution of 10 per cent. of nitrate of silver. Argentamine is an antiseptic, and according to Schäffer it is used with success against gonorrhœa in the place of nitrate of silver.

Argonin. *Silver Casein*.

An organic silver compound, as a white powder, forming a neutral solution in warm water, prepared by precipitating solutions of silver nitrate and casein-soda with alcohol. An efficient bactericide, especially on gonococci, without the caustic action of silver nitrate. A 10 per cent. solution may be used. To be kept in the dark.

Silver fluoride, AgF , is an antiseptic caustic, and *Silver Cinnamate* a new topical anti-tubercular.

Aristol. *Dithymol-Iodide*. *Di-iodo-di-Thymol*.

An Iodine compound, a substitute for Iodoform; it is a combination of Iodine (45.8) and Thymol, first prepared by Messinger and Vortman, by adding an alkaline solution of thymol to a solution of iodine in iodide of potassium.

An amorphous, brownish-red, odourless, non-toxic powder, insoluble in water and glycerine, sparingly in alcohol, freely in ether, chloroform and fatty oils. No heat must be used.

THERAPEUTICS. Adheres to the skin without irritation. Of benefit in wounds, burns, psoriasis, lupus, mycosis, &c. An ointment of 5 to 20 per cent. with vaseline, in eczema, ringworm, ulcers, and in gynæcological practice: it induces cicatrisation. A 10 per cent. collodion is also used for psoriasis.—*Lancet*, August 5th, 1890.

As the iodine readily leaves it, it should not be mixed with alkalis, or metallic oxides or starch: protect from heat and light.

ARISTOL—*continued*.

The powder, without admixture, applied to an ulcer attended with copious and offensive discharge, promptly abolished the odour and checked the discharge within twenty-four hours. "Moist gauze of Aristol, dusted with the powder, is desirable as a surgical dressing."—Daniel Lewis, M.D.

Arnica. $C_{12}H_{22}O_2$. *From the flowers of Arnica montana. Europe. N. O. Compositæ.*

The yellow crystalline principle of Arnica, very acrid and bitter; soluble in alcohol and ether. Irritant; used externally as a vulnerary, but with caution.

Arsenic Bromide

Has produced benefit in diabetes, in arresting the formation of sugar. Dose, $\frac{1}{50}$ grain.

Artemisia vulgaris. *Mugwort. Europe. N. O. Compositæ.*

This branched herb with small flower-heads is a stimulant tonic on account of its volatile oil and bitter principle.

A. absinthium, Wormwood, has similar properties.

Arrum triphyllum. *Indian Turnip. N. America. N. O. Aroidæ.*

This is a brownish, mealy tuber with an acrid taste. Stimulant irritant, principally externally.

A. maculatum, Dragon root, Europe, has also a mealy and acrid tuber.

Asaprol. $CaC_{10}H_6SO_4$. *β -Naphthol- α -Mono-Sulphonate of Calcium.*

It is a white scaly powder, readily soluble in water and obtained by the action of heated sulphuric acid on pure β -naphthol, and then a calcium salt made with the resulting acid. Its introducers, Drs. Stackler and Dnief, together with Dujardin-Beaumetz, advocate its use internally in the treatment of gout and rheumatism, particularly acute articular rheumatism. The growth of the bacilli of Asiatic cholera, herpes tonsurans, typhoid fever, and anthrax has been retarded by this agent; given in cachets of 6 to 8 grains.

Asarum Canadense. *Wild Ginger, N. America. N. O. Aristolochiaceæ.*

The rhizome is used for ascarides in children, in infusion or syrup, or chewed like liquorice root.

Asarum Europæum. *Asarabacca. Indigenous, but very rare.*

Rhizome. Warm, irritating stimulant, producing purging and vomiting. It was formerly used as an errhine in Cephalic snuff.

Asclepias Cornutum. *A. Syriaca.* Silk or Milk Weed. *N. O. Asclepiadaceæ.*

Root-bark of the fleshy rhizome containing laticiferous vessels; purgative, emetic, and heart tonic. It contains a bitter crystalline principle, and a milky juice. Dose of fluid extract, $\frac{1}{2}$ to 1 fluid drachm. As a diuretic in dropsy, in doses of 10 drops of fluid extract every 4 hours. Tincture 1 in 10; dose, 10 to 30 minims.

Asclepias Incarnata. *White Indian Hemp.* *N. America.*

Long knotty rhizome. Purifying cathartic. Used in catarrh, rheumatism, and syphilis. Dose fluid extract, 20 to 60 minims every three hours. Recently recommended as a reliable diuretic. Tincture (1 in 10) dose, 10 to 30 drops. It contains the yellow amorphous emetic glucoside *Asclepiadin*.

Asclepias Tuberosa. *Pleurisy or White Root.*

Large fusiform root. Diaphoretic diuretic; promotes perspiration in pleurisy, and inflammation of the lungs, without stimulating. Dose of fluid extract, $\frac{1}{2}$ to 2 fluid drachms. Tincture (1 in 10) dose, 5 to 30 drops.

Asclepin. $C_{20}H_{34}O_3$. *Asclepedin* the resinoid; dose, 1 to 3 grains.

Asepsin. *Brom-acetanilid.*

Colourless prisms, insoluble in water. Anodyne, analgesic. Dose, $1\frac{1}{2}$ grains.

Aseptol. $C_6H_5OSO_3H = C_6H_4OHSO_2OH$. *Sozolic acid.* *Ortho-phenol-sulphonic acid.* *Sulpho-carbol.*

A brownish-red syrupy liquid, formed by the union of carbolic and sulphuric acids; sp. gr. 1.45. Aseptol generally contains one third sozolic acid. Slight odour. Soluble in alcohol, water, and glycerine.

THERAPEUTICS. An antiseptic, less powerful than carbolic acid: used in aqueous solutions, containing 5 to 10 per cent. of aseptol.

It is antiseptic, without poisonous or irritating properties; especially adapted for surgery.

Asparagin, or Althein. $C_4H_8N_2O_3.HO_2$. *From Asparagus officinalis, Althwa, &c.*

White crystals, soluble 1 in 50 parts of water. Diuretic in gout and dropsy, and hypertrophy of the heart. Dose, 1 grain three times a day.

Asparoline.

Made by H. K. Wampole, U.S.A., consisting of Guaiacum, Asparagus, Parsley Seed, Black Haw and Henbane, in a brown liquid: an antispasmodic uterine tonic. Dose: 2 to 4 drachms in hot water.

Aspidosperma. (*See Quebracho.*)

Aspidospermine. $C_{22}H_{30}N_2O_2$.

This alkaloid is the active principle of true Quebracho bark (*which see*). Relieves the difficult breathing of asthma. Dose, $\frac{1}{8}$ to $\frac{1}{4}$ grain, in water acidulated with sulphuric acid: this sulphate also used hypodermically $\frac{1}{32}$ grain to lower temperature.

Atherosperma Moschata. *Australian Sassafras. Victoria and Tasmania. N. O. Atherospermaceæ.*

Diaphoretic and diuretic in pulmonary affections and asthma. Tincture, 2 oz. bark to 1 pint rect. spirit. Dose, tincture, $\frac{1}{2}$ to 1 drachm.

Atropine Santonate.

An amorphous, non-hygroscopic powder, readily soluble in water. A stable non-irritating mydriatic. Applied in solution of 1 in 2000 parts. Keep in dark brown bottles.

Anri-bromidum.

In brown powder. Nerve tonic. Dose $\frac{1}{20}$ to $\frac{1}{10}$ grain, well diluted.

Baptisin. *From Baptisia Tinctoria, Wild Indigo. N. America. N. O. Leguminosæ.*

The scaly, fibrous root is stimulant, emetic, and cathartic in doses of 5 to 10 grains. Active principle (resinoid), an hepatic and intestinal stimulant. Alterative, &c., applied to external sores, sprinkled on surface or made into an ointment. Dose, $\frac{1}{2}$ to 2 grains. [The constituents of the above are *Baptisin*, a glucoside, insoluble in water, an indifferent bitter: *Baptin*, another glucoside, slightly purgative: *Baptitorine*, an alkaloid, poisonous in small doses, producing a cessation of respiration.]

Barosmin. *From Buchu Leaves. N. O. Rutaceæ.*

Resinoid: in bladder diseases. Dose, 2 to 5 grains.

Baycurn. *Statice Brasiliensis.* *Brazils.* *N. O. Plumbaginacea.*

Large knotty rough root growing on sandy shore, sometimes covered by the sea. Astringent discutient in glandular swellings. Contains an alkaloid and resins.

Benzacetin. *Acetamido-methyl-Salicylic Acid.*

White crystals, soluble in alcohol, slightly in water. Forms salts with bases. Prompt antineuralgic.

Benzanilid. $C_6H_5NHC_7H_5O$. *Phenyl-benzamide.*

Has been used with good results in the same doses as acetanilid, 15 to 30 grains to 1 drachm daily; diminishes temperature, and is a true antipyretic.

Benzo-naphthol. β -*naphthol Benzoate.* $C_{10}H_7O.C_7H_5O$.

This combination of β -naphthol with Benzoic Acid (as *Betol* similarly with salicylic acid) was discovered by Drs. Berlioz and Yvon, of Paris. It is a powerful diuretic, and a non-toxic internal antiseptic, and is obtained by treating β -naphthol with Benzoyl-chloride. A white crystalline powder, insoluble in water, soluble in alcohol. In the intestine it separates into β -naphthol and benzoic acid. Dose, 5 to 10 grains every three hours, in a cachet.

In dysentery, in place of ipecacuanha, 45 grains per diem.—Dr. Clark, *Lancet*, February, 1895.

Benzoyl-eugenol.

Neutral acicular, colourless, odourless, slightly bitter crystals. Insoluble in water; freely soluble in alcohol. Anti-tubercular.

Benzoyl-guaiacol. *Benzosol.* $C_6H_4 \begin{cases} \text{OCH}_2 \text{ (ortho).} \\ \text{OCO}_6\text{CH}_3 \text{ (meta).} \end{cases}$

A compound of Benzoic acid with pure Guaiacol; a colourless tasteless crystalline powder, insoluble in water, soluble in chloroform, ether, or hot alcohol; it contains 54 per cent. of Guaiacol. For phthisis, it does not affect stomach: dose, 4 to 12 grains, in wafers.

“In the digestive tract it soon splits up into Guaiacol and Benzoic Acid; this occurs partially in the stomach, but chiefly in the small intestine.”—*Therapist*, July, 1891.

Benzoyl-guaiacol (Benzosol) in phthisis. Pills: Benzoyl-guaiacol, 9.2 grammes ($2\frac{1}{3}$ drachms); powdered tragacanth, 0.5 gramme (8 grains); syrup, a sufficient quantity. Divide into 50 pills, one 3-4-5 times daily. (Each pill represents 0.1 gramme [$1\frac{1}{2}$ minims] of guaiacol). Mixture: Benzoyl-guaiacol, 9.2 grammes

Benzoyl-guaiacol—*continued*.

($2\frac{1}{3}$ drachms); cod-liver oil, 90·8 grammes ($3\frac{1}{8}$ fl. oz.). Half a teaspoonful 3—4 times daily. (Each dose represents 0·1 gramme [$1\frac{1}{2}$ minims] of Guaiacol.)

Berberine. $C_{20}H_{17}NO_4$. *Alkaloid of Berberis, Hydrastis, &c.*

In silky crystals; forms yellow soluble salts with vegetable acids. It gives the yellow colour to the roots of some plants of the N. O. Ranunculaceæ and Menispermaceæ, as Calumbo, Coptis, and Coscinium; is seldom employed. [*Berberis Sulphas*. From *Nectandra rodiei*. Guiana, N. O. *Laurineæ*. Official; action like Quinine. Dose, 1 to 8 grains.]

Berberis aquifolium. *Mountain Grape, Rocky Mountain Barberry, Oregon Grape. United States. N. O. Berberidaceæ.*

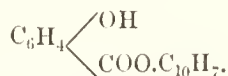
The root is used as a tonic alterative in syphilis, scrofula, &c. It contains Berberine, Oxyacanthine, Berbamine, and Phytosterin. Dose of fluid extract, 15 to 30 drops several times a day.

Berberis Lycium. (*See Rusot.*)**Berberis vulgaris.** *Barberry. Europe.*

The bark, known as barberry bark, thin, in laminæ, with yellow fracture, contains about 1·2 per cent. of Berberine; a tonic febrifuge in doses of 5 to 10 grains; the branched root is also used as a tonic.

Betol. β -Naphthalol Naphtosalol.

Salicylate of β -Naphthol.



A compound of salicylic acid with naphthol.

A coal-tar derivative, named by the French “Salinaphthol.”

Small brilliant crystals, colourless and tasteless: insoluble in water, soluble in alcohol, fat, and oil.

THERAPEUTICS. Especially for rheumatism. Same uses as Salol, in doses of 5 to 10 grains several times a day. In the body, it decomposes into β -naphthol and salicylic acid. Useful in rheumatism, neuralgia, catarrh of bladder, and cystitis.

In butter of cocoa pencils for gonorrhœa, 1 containing 20 per cent. betol.

Betol in infectious diarrhœa (Huchard). Cachets.—Betol, 2 grammes (30 grains); bismuth salicylate, powdered charcoal, of each 5 grammes (75 grains). For 20 cachets: one before each meal.

Betula Alba. *Birch. N. Europe. (Indigenous.) N. O. Betulaceæ.*

Tar is made from it in Russia, with the odour of Russia leather; this is the German birch tar: also a purified oil, *Oleum Betulinum*, *Ol. Rusei* (nothing to do with *Ruscus aculeatus*, Butcher's-broom). [For *Ol. Betulæ Lentæ*, sold as Oil of Winter-green, see note under *Chimaphila*.]

Bismal. $4C_{15}H_{12}O_{10} + 3Bi(OH)_3$.

This is a bismuth salt of methylene digallic acid: an internal astringent; a greyish-blue bulky powder. According to Dr. v. Oefele, it is a useful astringent for internal administration in cases of diarrhœa which are not influenced by opiates. The dose is from 1 to 5 grains in wafers.

Bismuth Carbolate. $(C_6H_5O)BiOH + Bi_2O_3$.

A dust-dry powder of a violet colour, almost insoluble in water; the preparation gradually imparts a blue colour to moist red litmus paper. Contains 72.6 per cent. of bismuth, 22 per cent. of phenol. Jasenski has discovered that Bismuth Carbolate is split up into its component parts by the digestive process of the animal organism, and that, on account of this property, it exercises a favorable influence in various affections of the stomach and the alimentary canal. Although the phenols possess toxic properties, it produced no symptoms of poisoning when given to human beings in doses of 5 grms. (gr. 75) daily. This is probably due to the slow separation of the phenols and the bismuth.

Bismuth Iodinate.

The Bismuth Salt of Iodine combines the properties of bismuth and iodine. Astringent and antiseptic. Used in the form of a 10 per cent. ointment in ulcers, sores, &c. In eczema the powder is dusted on the surface. Used also internally in the diarrhœa of consumptives in doses of 8 grains once or twice daily.

Bismuth β -naphtholate.

A light brown powder containing 50 per cent. of bismuth, insoluble in water, and without any irritating action; has been successfully administered in doses of 15 to 30 grains daily against cholera, and in the first stages of cholera.

Bismuthol. *Bismuth-sodium Phospho-salicylate.*

White, crystalline, odourless powder of rather agreeable taste. Soluble in water. Antiseptic, antipyretic, 20 per cent. dusting powder, or 1 to 10 per cent. solution topically.

It combines the antiseptic and antipyretic properties of bismuth, phosphoric and salicylic acids.

For wounds, ulcers, &c., as a dusting powder, 1 in 4 of French chalk, or in 10 to 20 per cent. ointments of fossiline vaselin, or lanolin.

Bismuth Peptonate.

In brown powder, containing about 3 per cent. of oxide; very assimilable in doses of 1 drachm.

Bismuth Phosphate (soluble).

Contains 20 per cent. Bi_2O_3 . Gastro-intestinal antiseptic. Dose, 3 to 8 grains.

Bismuth Pyrogallate.

Is the only antiseptic containing bismuth which is soluble in alkaline fluids.

Bismuth Salicylas (basic). $\text{Bi}(\text{C}_7\text{H}_5\text{O}_3)_3 \cdot \text{Bi}_2\text{O}_3$.

A yellowish powder, insoluble in water, alcohol, or ether. In typhoid fever, to destroy life of bacilli when supposed to be localised in intestines. Salicylic acid is poisonous to bacteria, and is given as a bismuth salt, so as not to be assimilated in the stomach. Dose, 10 grains every six hours. In French Codex Suppl., Salicyl. of Bismuth with Cerium, for diarrhœa, 5 to 15 grains.

Bismuth Sub-benzoate.

Obtained by precipitating a solution of sodium benzoate with bismuth subacetate. A fine white powder with a slightly aromatic odour, insoluble in water and alcohol. Antiseptic. Internally, 15 to 30 grains a day; externally, in same doses as iodoform.

Bismuth Subiodide. BiOI [or $\text{BiONO}_3(\text{BiOI})_2$].

A brick-red crystalline, odourless, tasteless powder, insoluble in water, alcohol, &c.

BISMUTH SUBIODIDE—*continued*.

Used as an antiseptic dusting powder, like iodoform; or a 1 in 10 ointment, of lard, &c.—*Medical News*, October 9th, 1886.

The brownish-yellow oxyiodide has similar properties, but is also used in ulcers of the stomach in doses of 8 to 16 grains.

Bismuth Sulphite. $\text{Bi}_2(\text{SO}_3)_3$.

Its therapeutic effects are based on its producing sulphuretted hydrogen; it may be considered as an intestinal antiseptic; has been used in Italy for gastric and intestinal fermentative diseases. Dose, 8 grains.

Bismuth Tribromphenol and Beta-naphthol-bismuth.

Tribromphenol-bismuth is an antiseptic recommended for cholera. It is a yellow, neutral, insoluble powder, destitute of odour and taste, nearly non-poisonous. It contains 49.5 per cent. of bismuth oxide, besides 50 per cent. of tribromphenol. The daily dose for adults is $1\frac{1}{4}$ to $1\frac{3}{4}$ drachms; single dose, $7\frac{1}{2}$ grains. This substance, according to Hueppe, possesses powerful bactericidal properties. *Beta-naphthol-bismuth* or *Orphol* has also been designated by Hueppe as the most efficacious intestinal antiseptic. It contains 80 per cent. of bismuth oxide. It is a neutral brown, odourless, non-caustic powder; insoluble in water, and decomposed into its component parts in the intestine. The dose is 15—30 grains daily. The beta-naphthol is probably absorbed and discharged with the urine, and the bismuth evacuated with the stools.

Blatta Orientalis. *Common or Brown-black Cockroach.* N. O. *Orthoptera*.

Used in Russia as a diuretic in dropsy. Dose of powder 5 to 10 grains; of tincture (1 of powder to 8 rectified spirit), 1 fluid drachm thrice daily. Does not disturb digestion or irritate kidneys. Its crystalline principle is called *Antihydropin* by Dr. Bogomolow, but is not diuretic (Maisch); it also contains trimethylamine.

Boldo. *Peumus Boldus*; *Boldoa fragrans.* *Brazils.* N. O. *Monimiaceæ*.

Leaves thick and leathery, containing an aromatic volatile oil, and a glucoside, *Boldoin* or *Boldol*, an hypnotic in doses of 3 grains; maximum daily dose, 15 grains.

THERAPEUTICS. Warm carminative tonic, especially in liver complaints. In dyspepsia of drinkers, combined with pepsine or with papain and calisaya bark; in nervous dyspepsia, combined with

BOLDO—*continued*.

hydrobromic acid and codeia. Dose, leaves, 8 to 12 grains; wine (1 part leaves to 30 parts wine), a dessert-spoonful; tincture (4 ounces leaves to pint rectified spirit), 8 to 15 drops, three times a day; fluid extract, 5 to 10 minims. In French Codex, 1884.

Bonduc. *Cesalpinia Bonducella*. *C. Bonduc*. *Asia*, &c. *N. O. Leguminosæ*.

CHARACTERISTICS. The seeds are grey from the former, and yellow from the latter. In Indian Pharmacopœia. The oily cotyledons, in a hard greyish shell, have a bitter taste.

THERAPEUTICS. Bitter tonic, antiperiodic. Dose, powdered seeds, 10 to 15 grains.

Boral. *Aluminum Borotartrate*.

Occurs in colourless crystals. Freely soluble in water with a sweet taste. Used as an antiseptic in the form of an insufflation, and also in solution with water and glycerine in inflamed throat and nose.

It is said to be therapeutically applicable as a disinfecting astringent, particularly in dermatology.

Boroglyceride of Calcium and Sodium.

A white glassy mass, soluble in water, a strong and innocuous surgical antiseptic and food preserver. Mix 1 part to 30 or 40 parts of water. The patented article, Boroglyceride, is reported to contain glycerine and boracic acid, heated together.

Borolyptol. *Aceto-boroglycerole*.

An American proprietary antiseptic; a liquid similar to Listerine, composed of formaldehyde, *Pinus pumilio*, myrrh, eucalyptus, benzoin, and styrax, and made by the Palisade Manufacturing Company, Youkers, New York. Dose, 1 to 2 drachms, diluted with water.

Borosalyll; Borosalicyl.

Is made by mixing boric acid 25 parts, sodium salicylate 32 parts, with sufficient water to form a paste, drying and powdering. Used as an antiseptic by incorporating with an ointment base or with water and glycerine, in the proportion of 1 part borosalyll with 4 parts of the base.

Bromal. C_2HBr_3O .

An oily liquid. (Chloral is C_2HCl_3O .) Relieves pain and gives sleep; also averts paroxysms of epilepsy. Dose, 3 grains occasionally.

Bromal Hydrate. $C_2HBr_3O.H_2O$.

Bromal united with water as a crystalline compound. An hypnotic, but irritating. Dose, 2 to 4 grains.

Chlorobrom is the name given by Dr. Charteris to a mixture of equal parts of potassium bromide and chloralamid dissolved in water, each fluid ounce containing 30 grains each of the drugs. It has been recommended by Dr. Kray (*Am. Journ. of Insanity*) as a valuable hypnotic in mania in doses of 1 ounce; also in sea-sickness.

Bromalin. *Bromethylformine.* $C_3H_6N_2C_2H_5Br$.

White crystalline laminae, tasteless, and soluble in water. Sedative in doses of $\frac{1}{2}$ to 1 drachm to ladies and children; also in epilepsy, up to half-ounce for adults, in water.

Used as an anti-epileptic as potassium bromide, but is said to produce none of the unpleasant results of the latter. It requires about twice as much bromalin as of potassium bromide, as the former contains less bromine. Daily doses, 5 to 30 grains in tablets, powders, cachets, or in solution with water and syrup of orange peel.

Bromamid. $C_6H_2Br_3NH_2.HBr$.

A staple compound, containing about 75 per cent. of bromine; needle crystals without colour, odour, or taste; not soluble in water. Dose, 5 to 15 grains; in fevers and rheumatism, reduces temperature and slows pulse without much sweating.

Bromidia.

"A favourite hypnotic with us in cases where there is marked excitement is a mixture we sometimes call 'Bromidia,' from its resemblance to the proprietary preparation of that name. It is given in 1 or 2 fluid drachm doses. Each drachm contains sodium bromide, 15 grains; chloral hydrate, 15 grains; tinct. cannabis indica, 4 minims; tinct. hyoscyamus, 4 minims; glycerine, 15 minims; and water sufficient to make up the fluid drachm. This preparation has best served us in actively acute maniacal conditions, and in the restless, sleepless, and excited condition which frequently follows a

BROMIDIA—*continued.*

series of fits in epileptic insanities.”—Dr. B. D. EVANS, Morris Plains Hospital (Insane), at Morristown, N.J.

Bromo-carbol.

A mixture of thymol, boric and carbohc acids, tribromal, chloral, and antipyrin. A yellow syrup, soluble in water. An antiseptic, non-caustic, pain-relieving, external application in 5 to 10 per cent. solutions and ointments.

Bromoform. CHBr_3 .

Produced by the action of bromide on alcohol in presence of an alkali; anæsthetic. A very volatile, colourless fluid. For whooping-cough: 2 to 5 drops three times a day, in a mixture of wine and water.

Bromoform in whooping-cough. Bromoformi 15 minims (2.5 grms.), Muc. Acaciæ 1½ fl. oz. (60 grms.), Syrupi Tolutani ½ fl. oz. (20 grms.). M. l. a.—“Shake well.” (It is easily suspended.) Dose, teaspoonful as the physician may direct.

Bromo-phenol.

Ortho-bromo-phenol is a dull violet-coloured liquid, with an odour resembling phenol, and soluble in water, alcohol, ether, and alkalies. It is a derivative of carbohc acid, in which the atoms of hydrogen are replaced by bromine. This compound has very recently been used successfully in the treatment of erysipelas. A 1 to 2 per cent. ointment, incorporated with soft paraffin, is rubbed on the affected part pretty thoroughly twice a day. It produced simply a moderate amount of tingling.

Bromophtarin.

Mixture of calcium and iron oxides, calcium carbonate and sulphate, sodium sulphate, sand, and yellow colouring matter.

Bromophyuin. *Monobromantipyrin.* $\text{C}_{11}\text{H}_{11}\text{BrN}_2\text{O}$.

White acicular crystals, insoluble in cold water. A derivative of antipyrin.

Bryonia Dioica. *White Bryony.* *The only indigenous species of N. O. Cucurbitaceæ.*

Thin, wrinkled discs of the thick conical root. Irritant; useful in plenrisy. Cathartic in large doses. Tincture (1 in 8 rect. spirit); dose, 1 to 10 drops. [*Tamus communis*, black bryony, N. O. Dioscoreaceæ, has similar properties.]

BRYONIA DIOICA—*continued*.

Bryonin. $C_{45}H_{80}O_{19}$. Bitter amorphous glucoside of Bryonia dioica and B. alba.

The bitter active principle; soluble in spirit and water. Strong cathartic in dropsy, &c. Dose, $\frac{1}{64}$ grain.

Bryonin. The eclectic resinoid; cathartic. Dose, $\frac{1}{4}$ to 1 grain.

Bryonia alba is a European but not British species, with black fruit and monœcious flowers.

Buxine. From *Buxus sempervirens*. N. O. *Euphorbiaceæ*.

An alkaloid identical with the beberine of nectandra bark. An anti-intermittent. Dose, 1 to 8 grains.

Cactus Grandiflora. Night-blooming Cereus. Tropical America. N. O. *Cactaceæ*.

The fleshy, angular, spiny branches, bearing large white fragrant sessile flowers, are used in functional palpitation of the heart. Dose, tincture (4 ounces to pint rect. spirit), 1 to 5 drops, three times a day. Dose of fluid extract, 1 to 3 minims. A useful adjunct; its action is the very opposite to digitalis; it strengthens the heart.—*Brit. Med. Journ.*, January, 1890. In Bright's disease, three doses per day of 5 grains each can be given. Botanically interesting as opening its showy flower at night.

Cactina is the proximate principle of the night-blooming cereus, and has been found by Dr. O. M. Myers to be a valuable cardiac stimulant. His results appear to show that it has less disturbing effects on the stomach than digitalis.

Tinctura Cacti Grandiflora. Prepared from the fresh young stems and flowers of *Cactus grandiflorus* (night-blooming cereus). One part of the freshly collected plant in 5 parts of tincture. Useful in functional palpitation of the heart. "It strengthens the heart."—*Brit. Med. Journ.*, January, 1892. Dose, 1 to 5 minims three times a day.

Cadmium Salicylate. $(C_6H_4OHCO_2)_2Cd + 3H_2O$.

Colourless shiny needles of sweetish astringent taste, soluble in glycerine and alcohol. Cadmium salicylate has a more energetic antiseptic effect than other cadmium salts. In cases of purulent ophthalmia, inflammation of the cornea (keratitis), conjunctivitis; also as an astringent for blennorrhœa, syphilis, &c.

℞	Cadmii Salicylatis ...	...	...	...	...	2 grains.
	Aq. Dest. ...	...	...	...	...	2½ drachms.

Cæsium and Ammonium Bromide.

White crystalline powder, easily soluble in water. An anti-epileptic and hypnotic, like the ordinary bromides. Dose, 15 to 30 grains.

Cæsium Bromide is also a nervine cardiac. Cæsium bitartrate is also used.

Cæsium, Rubidium, and Ammonium Bromide.

A white crystalline powder of a saline taste, and easily soluble in water. Anti-epileptic and hypnotic, but more effective than the ordinary bromides. Daily dose of 45 to 90 grains in sweetened water.

Caffeine. $C_8H_{10}N_4O_2$ or $C_7H_7N_4O_2CH_3$. From *Caffea Arabica*, *N. O. Cinchonacea*.

The berry contains 1 to 1.3 per cent. Identical with theine, in delicate, white, soft, and flexible needle-shaped crystals; slightly soluble in water. Theobromine in cocoa is Caffeine, in which hydrogen replaces an atom of methyl; Caffeine is, therefore, methyl-theobromine. Stimulant, antiperiodic. Antidote to opium.

THERAPEUTICS. Dose, $\frac{1}{2}$ to 3 grains. It is a heart tonic and a nervous stimulant. The juice of a lemon in a cup of strong coffee is valuable in neuralgic headache (tea generally aggravating it). Wine of green coffee has been used for gout.

Caffeine Borocitrate.

A white, light powder, readily soluble in water, alcohol, or chloroform. Combines the physiological action of caffeine with the antiseptic properties of boric acid. Dose, 1 to 3 grains.

Caffeine Citrate.

A whitish powder; doubtful if a true chemical compound. Strongly diuretic in cardiac dropsy, and alcohol and opium poisoning; in large doses the salts of Caffeine act on the heart like digitalis. Also in bronchial asthma and neuralgic headache; best in a cup of coffee. Dose, 1 grain, gradually increased to 4 grains. The effervescent granular compound is a good form. Dose, a teaspoonful in water.

Caffeine Phosphate and Succinate.

These salts are crystalline powders, easily soluble in alcohol. The former is soluble in boiling, the latter also in cold water.

Caffeine Sodio-benzoate, &c.

The Sodio-benzoate (containing 50 per cent. Caffeine), Sodio-cinnamate, and Sodio-salicylate (both containing $62\frac{1}{2}$ per cent. Caffeine) are soluble in two parts of boiling water, remain in solution on cooling, are stable, and permit the subcutaneous employment of Caffeine: against headaches. Dose, 5 to 10 minims of a solution of above strength.

Cahinea. Chiococca Anguifuga. *Raiz preta. Brazils. N. O. Rubiaceæ.*

Large woody pale-brown root, with little taste and no odour. A powerful diuretic in dropsy, &c. Dose, extract, 10 to 20 grains; fluid extract, 20 to 40 drops. Active principle is *Cahincic Acid*. In French Codex, 1884.

Cahincin. $C_{40}H_{64}O_{18}$. *Cahincic Acid, Caincin, Cainic Acid.*

A glucoside from *Chiococca racemosa*. A white, odourless, bitter, permanent mass, difficultly soluble in water, readily soluble in alcohol. Cathartic and diuretic in small doses, emetic in large doses. Cathartic dose, 2 to 4 grains; emetic, 8 to 15 grains.

Calcium Benzoate. $Ca(C_7H_5O_2)_2$ (*Benzoic Acid is $C_7H_6O_2$*).

White efflorescent crystalline grains. In Bright's disease and albuminuria of pregnancy. Solubility, 10 grains to 1 ounce of water. Dose, 5 to 10 grains every three hours.

Calcium Borate. CaB_4O_7 .

A white powder, soluble in solutions of calcium chloride or of borax; it may be used with advantage in the form of ointment in the treatment of burns, moist eczema, and fœtid perspiration. Internally it is said to be an excellent anti-diarrhœic for children. It may be exhibited as follows:—For external use: borate of calcium, 5 parts; glycerine, 5 parts; lanolin, 20 parts; balsam of Peru, 1 part. Mix.—Internally, borate of calcium, 50 centigrammes; powdered salep, 20 centigrammes; sugar, 30 centigrammes. A child of five years of age may take three such powders daily.

Calcium Cresylate.

Recommended by Prof. Fodor as a cheap and effective disinfectant. It is prepared by adding 1 part of lime to 4 parts of water, and adding to this milk of lime 5 parts of crude cresylic acid. A syrupy liquid results, which is miscible with water in all proportions.

Calcium Phosphate. $\text{Ca}_3(\text{PO}_4)_2$.

This tribasic salt is being used in consumption, in doses of 1 to 4 drachms daily, mixed with water and a little hydrochloric acid; it stimulates the appetite, improves digestion, and lessens perspiration.

Calcium Sautonate.

A white, odourless, and tasteless powder, insoluble in water or chloroform. A non-absorbable anthelmintic in doses of $\frac{1}{2}$ to $1\frac{1}{2}$ grains.

Calcium Sulphide.

In daily 1-grain doses in pills has given even better results than daily 5-grain doses of quinine in Influenza.

"Its *modus operandi* is that it renders the blood unfit to receive and support the influenza bacillus."—W. E. GREEN, *Brit. Med. Journ.*, 1895, p. 974.

Calcium Sulphophenate.

Prepared by the action of sulphophenic acid on calcium carbonate. A white, odourless, permanent powder with a bitter taste. Soluble in water or alcohol; antiseptic, disinfectant, and astringent. Given in 1 per cent. solution in sweetened water.

Calendula Officinalis. *C. arvensis.* Marigold. *S. Europe. N. O. Compositæ.*

Fresh flowering herb with rough leaves and yellow flowers. Tincture, 1 in 10. Useful as an ointment to wounds; 1 part of tinct. to 9 of lard.

Calotropis. (*See Mudar Bark.*)**Camphoid.**

Invented by Mr. William Martindale as a substitute for collodion. It consists of pyroxylin (soluble gun-cotton), 1 part; camphor, 20 parts, dilute alcohol, 20 parts. Applied to the skin, this preparation dries in a few minutes and forms an elastic opaque film, which does not wash off. The excess of camphor seems to volatilise, and as it disguises the odour of iodoform, its solution forms a useful vehicle for applying this drug. Pyroxylin dissolves readily in the simple solution of camphor, and this forms a cleanly basis for the application of many medicaments to the skin, such as carbolic acid, salicylic acid, resorcin, iodine, chrysarobin, ichthyol, and iodoform.

Camphor, Monobromated. $C_{10}H_{15}BrO$.

White transparent prisms, brittle, with a camphoraceous terebinthinate odour, soluble in alcohol. Camphor in which bromine replaces one atom of hydrogen. (Camphor is $C_{10}H_{16}O$.)

THERAPEUTICS. Hypnotic; a useful sedative in whooping-cough. Dose, 2 to 5 grains in a pill. In French Codex, 1884.

Camphor Naphthol.

Made by melting one part of powdered beta-naphthol with two parts of powdered camphor. An oily fluid soluble in alcohol, ether, and oils; insoluble in water. Dissolves iodine, cocaine, and cinchona alkaloids. External antiseptic and antiparasitic. Used in scabies, pediculosis, and other parasitic cutaneous affections.

Camphor Phenol. *Phenol Camphor.*

A solution of camphor in three parts of 95 per cent. carbolic acid. Clear oily fluid, of a camphoraceous odour and taste. Insoluble in water; easily soluble in vegetable oils and petroleum jelly. Dissolves salicylic acid, cocaine, and iodoform; said to disguise the odour of the last. An antiseptic, antipruritic, local anæsthetic, and carminative. Dose, 5 to 10 drops in capsules. Applied externally in 50 per cent. oily solution.

Camphor, Salicylated.

Made by heating 84 parts of camphor with 65 of salicylic acid until solution results. A white crystalline mass slightly soluble in water and glycerine; soluble in 20 parts of fats or oils. An internal and external antiseptic. Given in doses of 1 to 4 grains in pill formed with one-sixth lard. Used externally in 5 to 20 per cent. ointments. In otorrhœa, introduce a tampon daily saturated with this substance, washing afterwards with solution of boric acid: non-irritant, and cures in 5 to 15 days.

Camphor Salol. *Salol Camphor.*

Prepared by melting together 3 parts of salol and 2 of camphor. Light yellow, oily fluid, easily soluble in alcohol, ether, and oils; insoluble in water. Dissolves iodine and alkaloids. Used as an external antiseptic in cutaneous diseases.

Cancroine.

Adamkiewicz used the toxic secretion of the parasites of carcinoma as a prophylactic against cancer. As Neurine (evidently closely connected with this poison) has a similar effect on the cancerous organism, Adamkiewicz called Cancroine a solution of neurine in water, to which a little of carbolic and citric acid is added. It is prepared in three concentrations (Nos. 1, 2, and 3, the last being the least effective) and subcutaneously applied.

Cannabine. *From the flowering tops of the female plants of Cannabis sativa, var. Indica. Gunja. Asia. N. O. Urticacæ.*

This alkaloid is a brown syrupy body; the poisonous substance in cannabis indica is removed, and the hypnotic effect alone preserved, without interference with the secretions. Dose, $1\frac{1}{2}$ to 5 grains at night-time. *Haschisch*, in French Codex, 1884, is the Persian native extract of Indian hemp, often sweetened; it is prepared by treating alcoholic extract of Indian hemp with caustic alkali, and consists of the soft resin cannabinon, and the poisonous alkaloid tetanine. Dose, $\frac{1}{2}$ to 1 grain.

The tannate, introduced by Dr. Frommüller of Förth, is a yellowish-brown powder, scarcely soluble in water or alcohol.

Cannabinon is the soft brown resin: sedative, dose $\frac{1}{4}$ to 1 grain; hypnotic, dose 1 grain.

Cannabindone. $C_8H_{12}O$. Prepared by Kobert of Dorpat; a red syrup, soluble in alcohol, very similar to Cannabinon; intoxicating in doses of $\frac{1}{4}$ grain.

Cantharidin. *From Cantharis vesicatoria. Europe. N. O. Coleoptera.*

The neutral principle; in tabular white crystals, soluble in ether, glacial acetic acid, fats, and oils. Intensely irritating.

Cantharidates of Potassium and Sodium (Liebreich).

Formula: Cantharidin pur.	...	...	...	3 grains.
Potassium hydroxide pur.	...	...	...	6 "
or				
Sodium hydroxide pur.	...	...	...	4½ "
Cold water	...	...	...	5½ fl. drachms.

Heat in a water-bath; then add cold water to 32½ fluid ounces or 1 litre.

Dose, 0.16 to 0.33 (at most 0.66) cubic centimetres of this solution to be injected.

1 cubic centimetre (16 minims) represents 2 decimilligrammes of cantharidin.

CANTHARIDIN—*continued*.

In pharyngitis and tuberculous laryngitis; improvement takes place after a few injections of $\frac{1}{2}$ to 1 decigr.—*Therapist*, March, 1891.

Caoutchouc. *India-rubber. Tropics.*

This milky juice is produced by species of *Hevea* (Para rubber, official in U.S. Pharmacopœia), *Jatropha*, and *Siphonia* (N. O. Euphorbiaceæ) *Ficus*, (N. O. Actocarpaceæ), and other tropical trees. These milk juices congeal in blackish-brown masses, containing a colourless solid hydrocarbon, $C_{20}H_{32}$. With 10 per cent. sulphur, vulcanised rubber is produced; with half its weight of sulphur and with pressure *Ebonite* is produced.

Gutta-percha is from species of *Palaquium*, Malaga, N. O. Sapotaceæ; it contains about 80 per cent. of the same hydrocarbon, $C_{20}H_{32}$.

Balata, chicle, or tuno gum is from *Mimusops globosa* (*Sapota Mulleri*), the Central America bully tree, and closely resembles gutta-percha in appearance and properties (Maisch).

Capsella Bursa-pastoris. *Shepherd's-purse. Indigenous. N. O. Cruciferae.*

A common plant with white flowers; contains a sulphuretted volatile oil identical with mustard oil (Maisch), a glucoside and bitter principle. Hæmostatic and tonic, in doses of 1 drachm in tincture or fluid extract.

Carbon Tetrachloride. CCl_4 . *Tetrachlor-methane. (Methane is CH_4 .)*

Volatile, heavy, colourless liquid, sp. gr. 1.599, with pleasant odour. Anæsthetic, but heart-depressing. Vapour is used for neuralgia and hay fever.

Carduus Benedictus. *Blessed or Holy Thistle. Cnicus benedictus. Europe. N. O. Compositæ.*

A woolly plant, with spiny leaves and yellow florets. Contains bitter Cnicin, and is a tonic in doses of 1 drachm.

Carex Arenaria. *Red Sedge; German Sarsaparilla. Europe. N. O. Cyperaceæ.*

Long, thin, burrowing, underground stem, with sweet-bitter taste. Alterative.

Carica Papaya. *Papaw. Tropics. N. O. Passifloreæ.*

Its milky juice from unripe fruit (edible when ripe) for dysentery; it contains Papayotin or Papaine, which readily dissolves meat, &c. See *Papaine*.

Carnauba. *Corypha cerifera*. *Wax Palm*. *Brazils*. *N. O. Palmaceæ*.

The root is alterative and diuretic; used as sarsaparilla. The wax is yellowish white. Dose of decoction (1 ounce to pint), 1 ounce.

Carniferrin.

This tasteless preparation is a nutritive combination of 30 per cent. iron with phosphor-carnic acid, a constituent of flesh. It is miscible with alkaline and acid solutions, and is readily absorbed and digested. Dose, 3 to 5 grains daily for children, and 8 grains for adults; maximum daily dose is 1 drachm.

Caroba. *Jacaranda tomentosa*, or *J. procera*. *S. America*. *N. O. Bignoniaceæ*.

It comes also from several species of *Bignonia* and from *Cybistax antisiphilitica*. The leaves are unsymmetrical, leathery, inodorous, with bitter, astringent taste.

THERAPEUTICS. They and the bark used as an antisiphilitic; can be well combined with iodides. Tonic, diuretic, and sudorific. Dose of fluid extract, 1 drachm (representing 1 drachm leaves) three times a day. [Peckolt has found a crystallised alkaloid, Carobin.] "Of some value in secondary and tertiary syphilis."—E. H. FENWICK. *Lancet*, September 24th, 1887.

Carpaine. $C_{14}H_{27}NO_2$.

Discovered by M. Greshoff in the leaves of *Carica papaya* (melon tree); occurs as beautiful crystals of a very bitter taste, melts at $115^{\circ} C.$ [$279^{\circ} F.$], and forms with acids crystalline salts, of which the *hydrochlorate*—which is freely soluble in water—is the most important. Internally (in daily doses of 0.025 gramme [$\frac{3}{8}$ grain]) it is reported to possess no advantages over the other digitalis substitutes; but its *subcutaneous* employment in doses of 0.0006—0.01 [$\frac{1}{16}$ — $\frac{1}{8}$ grain] daily in heart disease is recommended.

Carthamus Tinctorius. *Safflower*. *Asia*. *N. O. Compositæ*.

The red tubular florets contain red carthamin. Used as a diaphoretic, and pressed in little round cases as a dye.

Carvacrol Iodide.

Derived from carvacrol; isomeric with thymol. A brownish-yellow powder, soluble in ether, chloroform, and fixed oils, scarcely so in alcohol; insoluble in water. Used externally in same proportions as iodoform and aristol.

Casca or Sassy Bark. *Erythrophloeum guineense*. West Africa. N. O. Leguminosæ.

Flat, warty, reddish, fibrous bark. In heart affections, strengthens and moderates the action of the heart like digitalin. Poisonous in large doses. "A more powerful tonic than digitalis."—Dr. T. L. BRUNTON, *British Medical Journal*, March, 1887. Dose of tincture (rect. 1 in 10), 5 to 10 minims. The ordeal poison of Angola: if it causes vomiting, the victim is acquitted; if purging, he is executed. [Alkaloid Erythrophleine, *which see*.]

Cascara Amarga. *Picramnia*. Mexico. N. O. Simarubaceæ.

The bark is a tonic alterative, especially antisyphilitic. Dose of fluid extract, 1 drachm three times a day.

Cascara Sagrada. *Rhamnus purshiana*. Chittam Bark. California. N. O. Rhamnaceæ.

CHARACTERISTICS. Bark. Largish pieces, rather flat and thin, breaking short; pale yellowish brown, with adherent brown outer bark, and dark fibrous inner layer; little odour and nauseous taste: when the outer layer is corrugated and thickened the bark is not so valuable. It contains a yellow crystalline principle resembling frangulin and tannin. *Rhamnus californica* is also collected.

THERAPEUTICS. Used in obstinate dyspeptic or bilious constipation (especially where the use of cathartics has done harm), combined with extract of malt, or as an elixir, to conceal its nauseous bitter taste. Dose, 20 drops of fluid extract, or a teaspoonful of elixir, preferably before meals, twice a day for about a fortnight: ripe fruit and copious draughts of cold water assist this treatment.

Dose, $\frac{1}{2}$ to 2 fl. drms. of B. P. fluid extract; 2 to 8 grains of the solid extract.

The inspissated fluid extract can be given in capsules, or the bitter resin can be removed from a fluid preparation.

"Also for rheumatism."—*Lancet*, September, 1888, p. 420.

Cascarine, $C_{12}H_{10}O_5$.—The active principle of cascara sagrada; a yellow crystalline powder, without odour or taste, soluble in alcohol. Valuable in habitual constipation; it can be administered as follows:

Cascarine	...	...	...	...	...	...	gr. xxx.
Powdered althæa							} of each a sufficient quantity.
Acacia mucilage							

Divide into 20 pills, one morning and evening.

Casein Ointment.

Casein (14), potassium and sodium hydroxide 4:1 (0.43), glycerine (7), vaseline (21), salicylic acid or borax (1), and water (56.57). Dermal vehicle.

Castanea Dentata. *Chestnut. N. America. N. O. Cupuliferæ.*

Leaves : used in America for whooping-cough. The U.S.A. Pharm. contains the fluid extract ; dose, 5 to 60 minims.

Caulophyllum Thalicteroides. *Blue Cohosh, Squaw or Papoose root. N. America. N. O. Berberidacæ.*

The rhizome is long, branched and scarred.

Caulophyllin is an electric resinoid : in brown powder ; it has an influence on the uterus ; used as a tonic in childbirth, or to relieve after-pain, especially with cypripedin and scutellarin. Dose, 2 to 4 grains.

The rhizome also contains the white alkaloid Caulophylline and the acid glucoside Leontin.

Cedron. *Simaba cedron. New Granada. N. O. Simarubacæ (or Rutacæ).*

The cotyledons are $1\frac{1}{2}$ inches long ; very bitter ; allied to quassia. Has been used for snake-bites, and also hydrophobia.

THERAPEUTICS. Tonic and antispasmodic, useful in malaria and dyspepsia. Dose of fluid ext., 3 to 20 minims every few hours. It is official in the French Codex, 1884.

Cerberin. $C_{25}H_{38}O_{12}$.

A glucoside from *Thevetia Yocatli* (Apocynæ), Mexico. A yellowish-white, crystalline, bitter powder, soluble in hot water and alcohol. A cardiac like the digitalis group ; it is given subcutaneously.

Cereus. (*See Cactus.*)

Ceylon Moss. *Gracilaria lichenoides. N. O. Algæ.*

A greenish-purple seaweed on coasts of Ceylon. When dry, it is in opaque white filaments. Demulcent, emollient, and nutritive ; used in the East for jelly, &c., and in diarrhœa.

Chamælitrum Luteum. *Helonias dioica. Starwort. False Unicorn. N. America. N. O. Liliacæ.*

Thick annulated rhizome, with white, horny fracture and bitter taste. It contains the yellow glucoside *Chamælitrin*, and in doses of $\frac{1}{4}$ to 1 drachm is tonic and anthelmintic.

Helonin, the eclectic concentration ; dose, 1 to 4 grains.

Chanmoogra Oil. *Gynocardia odorata*. India. N. O. *Bixineæ*.

A forest tree, with a fleshy fruit larger than an orange; the latter has numerous seeds, containing 50 per cent. of oil. [Active principle is Gynocardic acid, *which see*.] The whitish oil, solid at 62°, is used internally and externally in skin diseases; also in rheumatism, sciatica, &c. In eczema, Gynocardic acid, 15 to 25 grains in 1 ounce of vaseline or fossiline, to be applied four times daily. Internally, 5 to 10 drops of oil or $\frac{1}{2}$ grain of acid, taken after food, thrice daily; the oil in capsule, the acid in pills, and the dose to be gradually increased to five times the amount. "Of value as a liniment in gonorrhœal rheumatism, especially mixed in equal parts with lanoline."—*Lancet*, September 24th, 1887.

Cheken. *Myrtus Chekan*. Chili. N. O. *Myrtaceæ*.

An evergreen shrub, having leaves resembling buchu. Relieves bronchitis, coughs, and throat affections, as a tonic demulcent expectorant, especially in winter and for old people; so recommended by Dr. William Murrell. Dose of fluid extract, 1 to 3 drachms. The active principles seem an alkaloid and volatile oil.

Chelidonium Majus. *Celandine*. Indigenous. N. O. *Papaveraceæ*.

Its orange-coloured juice is acrid, and destroys warts; internally it is a diuretic stimulant. [*Chelidonine* is the active principle; the muriate is used as a laxative, slightly diuretic, in doses of 1 to 3 grains.]

Chelone Glabra. *Balmomy*. N. America. N. O. *Scrophulariaceæ*.

The serrated lanceolate leaves are used; they contain a bitter principle, and are used as a tonic and anthelmintic.

Chelonin is the eclectic extractive. Dose, 2 to 4 grains.

Chenopodium Ambrosioides, and var. *anthelminticum*. American Wormseed. N. O. *Chenopodiaceæ*.

The fruit is nearly $\frac{1}{12}$ inch in diameter, depressed, globular, glandular, dull greenish or brownish, the integuments friable, and containing a lenticular, obtusely edged, glossy black seed. It contains volatile oil, has a peculiar terebinthinate odour, and a pungent taste. Anthelmintic, in doses of 20 grains in powder, or 5 to 10 minims of the volatile oil.

Chimaphila (Pyrola) Umbellata. N. America. Winter-green, *Pipsissewa*, or *Princess Pine*. N. O. *Pyrolaceæ* (*Ericaceæ*).

Dried plant, with pleasant astringent taste. Contains the yellow

CHIMAPHILA (PYROLA) UMBELLATA.—*continued.*

bitter crystalline principle, *Chimaphilin*: *Chimaphyllin*, the resinoid; dose, 3 to 5 grains.

THERAPEUTICS. Tonic diuretic, especially as an alterative in scrofula and in dropsy, given as decoction or fluid extract. [The essential oil of Winter-green comes from the leaves of *Gaultheria procumbens*, Partridge-berry, N. O. Ericaceæ. The same ess. oil is produced by *Betula lenta*, the sweet birch of the United States, N. O. Betulaceæ.]

Chinol. *Chinolin* or *Quinolin Monohypochloride*.

White, crystalline, odourless powder, almost insoluble in water. Soluble in alcohol. Antipyretic. Dose, 3 to 5 grs.

Chinolin. *Quinolin*. C_9H_7N .

This base, originally produced by Gerhardt from Cinchonine, was made synthetically in 1880 by Dr. W. Königs, of Munich, from Anilin.

A mobile, refracting liquid. Antiseptic and antipyretic. A 5 per cent. solution (alcoholic) has been used to paint fauces in diphtheria.

Chinolin Tartrate. A crystalline powder. The salts of Chinolin distinctly lower the temperature of the body. *Chinolin Salicylate* is also used. Dose of either salt, 5 to 10 grains.

Chinosol. *Quinosol*.

A derivative of chinolin, manufactured by F. Fritzsche and Co., of Hamburg. It is a yellow powder, soluble in water, with a slight aromatic odour and carbolic-like astringent taste. It is a non-toxic antiseptic and bactericidal deodoriser, especially in surgical cases, wounds, &c.

Chloralamide. $CCl_3CH \begin{cases} \text{OH} \\ \text{NHCHO} \end{cases}$

Introduced by Von Mering; it is a combination of chloral and formamide.

In colourless crystals, dissolving in 9 parts of water (cold, not hot water, which might decompose it), with mild, slightly bitter taste.

THERAPEUTICS. A safe hypnotic; dose, 15 to 30 grains in water and syrup, or weak alcohol; it takes effect in half an hour, and lasts 7 to 9 hours. Maximum daily dose, 1 drachm. In nervous excitement and restlessness not accompanied with acute pain; it does not

CHLORALAMIDE—*continued*.

disturb pulse, stomach, kidneys, respiration, or temperature. "Its effects resemble Paraldehyde."—*Lancet*, 15-2-90. In German Pharmacopœia.

Chloral-Ammonium.

White crystalline unstable powder. Soluble in water. Hypnotic. Dose, 15 to 30 grs.

Chloral-Caffeine.

An anodyne and antispasmodic. It consists of white, shining crystal leaflets, very readily dissolved in cold water. This fact renders it very serviceable for subcutaneous injections. Alkalies decompose it into chloroform and caffeine. Chloral-caffeine has a marked sedative effect in cases of irritation of the peripheral nervous system. It was administered subcutaneously in rheumatism and sciatica in an aqueous solution, in single doses of 3—4½ grs., and in daily doses of 6—13½ grs. The injections were, as a rule, painless—only a few patients complaining of slight burning at the place of puncture, lasting 1—3 hours.

Chloral Hydrocyanate.

It consists of colourless prisms, and is easily soluble in water, alcohol, and ether. The compound is very stable, and its aqueous solution remains for a long time unaltered. In pharmacy it is used as a stable substitute for cherry-laurel water, bitter almond water, &c., because it exercises the same physiological action as pure hydrocyanic acid. 6.46 parts by weight of chloral hydrocyanate correspond with 1 part of anhydrous hydrocyanic acid.

Chloralimide. $\text{CCl}_3\text{CH.N.H.}$

An hypnotic, allied to chloral. In long needle crystals, without colour, odour, or taste; insoluble in water, soluble in alcohol. Dose, same as chloral hydrate.

Chloralose. $\text{C}_8\text{H}_{11}\text{Cl}_3\text{O}_6$.

An hypnotic, originated by Hanriot and Richet, of Paris, produced by anhydrous Chloral acting on Glucose. In white needles, bitter, soluble in hot water and alcohol; though stimulating the spinal cord, it has a marked hypnotic action on the brain. Where morphia and chloral produce bad effects, Chloralose has given refreshing sleep, without dreams, headache, or stomach disturbance. Dose, from 4 to 12 grains, in one dose at bedtime, in cachets or in hot weak spirit and water.

Chloral Urethane. *Ural, Uralin, or Uralium.*

A mixture of chloral and urethane, treated with hydrochloric and sulphuric acids. White, bitter crystals, slightly soluble in alcohol and ether; insoluble in cold water; decomposed by hot water. Hypnotic; said to be safer than chloral, and more persistent. Dose, 15 to 45 grains in wafers.

Chlorol.

Solution of chlorides of mercury and sodium, hydrochloric acid and cupric sulphate in water; antiseptic, and disinfecting. It is said to have the following composition:—Corrosive Sublimate, Sodium Chloride, and Hydrochloric Acid, of each 1 part; Copper Sulphate, 3 parts; Distilled Water 1000 parts.

Chlorolin.

A mixture containing mono- and trichlorophenols. Introduced by J. Weirich, of Strassburg. Disinfectant for urinals, &c. Also in 2 to 3 per cent. solutions in surgery, and as mouth-wash in $\frac{1}{2}$ to 1 per cent.

Chloro-phenol. *Tri-chlor-phenol.*

Is a derivative of carboic acid in which the atoms of hydrogen are replaced by chlorine, occurring in the form of colourless needle-like crystals with an odour of phenol—more strongly marked than its allied product Bromo-phenol.

Chlorsalol.

There are two, ortho- and para-; white, crystalline, soluble in alcohol. Non-poisonous intestinal antiseptics, similar to salol. Dose, 1 drachm.

Chroatol.

Prepared by the action of iodine upon turpentine. Occurs as a greenish liquid, with a density less than water and greater than that of alcohol; grows darker and thicker upon exposure to the air; insoluble in water, slightly soluble in alcohol, very soluble in ether, chloroform, and turpentine. An antiseptic dermic. Used externally only, and applied as 10 per cent. collodion or ointment.

Chrysarobin. $C_{30}H_{26}O_7$. (*Chrysophanic Acid is $C_{13}H_{10}O_4$, or by some $C_{14}H_8O_4$.*)

CHARACTERISTICS. Yellow powder, or golden needle crystals, soluble in ether and alcohol. A mixture of proximate principles.

CHRYSAROBIN—*continued*.

commonly misnamed Chrysophanic acid, separated by solvents from Goa powder, *which see*. Chrysarobin, on absorbing oxygen, becomes Chrysophanic acid. Discovered in 1819 in a lichen.

THERAPEUTICS. An ointment, 10 to 20 grains to the ounce of lard, is used in ringworm and other skin diseases as a stimulant parasiticide. Dose, internally, $\frac{1}{4}$ to 2 grains in pills, for skin diseases.

Cichorium Intybus. *Chicory. Indigenous. N. O. Compositæ.*

The root resembles Taraxacum, and contains Inulin and a bitter principle that makes it tonic. Dose, 1 drachm.

Cimicifuga (Actæa) Racemosa. *Black Cohosh. Black Snakeroot. North America. N. O. Ranunculaceæ.*

Hard, branched, scarred rhizome. A tonic to nerves in acute rheumatism, spasms, &c. Tincture (1 in 4) dose, 15 to 60 drops. Fluid extract dose, 10 to 30 drops.

THERAPEUTICS. Preferred by Bartholow to Digitalis in "fatty heart;" valuable as a sedative in headaches attendant on uterine derangement, having special power in nervous sexual hypochondriasis.

Cimicifugin, or *Macrotin*, is the resinoid or impure resin, existing about $3\frac{3}{4}$ per cent. in above: yellowish-brown powder. Dose, 1 to 4 grains.

Cinchonamine. *From bark of Remijia Purdieana. Cuprea Bark. N. O. Rubiaceæ. $C_{19}H_{24}N_2O$. The neutral sulphate is $(C_{19}H_{24}N_2O)_2SO_4H_2$.*

An alkaloid, of which the sulphate and hydrochlorate are employed.

It lowers the vital force of the heart and the nerve centres. Used as a test for nitrates in water.

Cinchonine Iodo-sulphate.

A succedaneum for iodoform. Dusting powder: Cinchonine iodo-sulphate 1 part, powdered talc, or lycopodium, 1 to 2 parts. Externally—ointment: Cinchonine iodo-sulphate 1 to 5 parts, vaselin (or lanolin) 10 parts.

Citrophene.

This is a combination of Phenacetin and Citric Acid, forming a white powder soluble in water, having the taste of citric acid, properties which render it at the same time agreeable to take and convenient for use in hypodermic injection. Dr. Bernario finds that

CITROPHENE—*continued.*

Citrophene is innocuous, and has employed it in doses of from $\frac{1}{2}$ to 1 gramme as an antithermic and analgesic in cases of typhoid, migraine, and in various neuralgias; as much as 6 grammes may be given in twenty-four hours.

Coca. *Erythroxylon coca.* *S. America.* *N. O. Linacæ.*

Leaves oval, lanceolate, slightly coriaceous; their peculiarity is the line running up on either side of the midrib.

THERAPEUTICS. Restores functions of *stomach*, toning up mental and physical powers; useful for excess of uric acid and high-coloured urine, weak heart, alcohol craving, and sick headache. Doses: solid extract, 5 to 10 grains; fluid extract, 30 to 100 minims; tincture, 1 to 4 drachms; wine, $\frac{1}{2}$ to 1 oz. In French Codex, 1884.

“Stimulates nervous system and retards process of metamorphosis, so that work is done with less expenditure of force with than without Coca.”—Dr. A. P. Mason, *Boston Med. and Surg. Journ.*, 1882, p. 221.

“Assuages thirst during great exertion in hot countries. An infusion relieves the intense headache of nervous exhaustion, wards off the failure of nerve power during prolonged fever, and enables patients to struggle through their exhaustive diseases.”—*Medical Times*, 1882, p. 161 (Surgeon-Major T. Edmonston Charles, of the Indian Army).

Cocaine. *The active principle (Alkaloid) of Erythroxylon coca.* $C_{17}H_{21}NO_4$.

CHARACTERISTICS. Colourless crystals, hardly soluble in cold, easily in warm acidulated water, alcohol, and ether.

THERAPEUTICS. It is one of the best nervous stimulants for raising temperature of the body; dangerous in excessive doses.

Its important use is for local anæsthesia, in 4 to 20 per cent. solution in water of the hydrochlorate. Soothing stimulant to increased nervous action of all organs. Dose, $\frac{1}{4}$ to 1 grain or more.

M. Regnault finds strong 10 per cent. solutions beneficial in seasickness, by producing anæsthesia of the stomach.—*Progrès méd.*, September 10th, 1887, p. 195.

“A 20 per cent. solution of great value in lithotripsy; in any vesico-urethral instrumentation, solutions of 4 to 20 per cent.”—*Lancet*, September 24th, 1887.

“It stimulates the nerve centres, and is thus antagonistic to

COCAINE—*continued*.

chloral, ether, and chloroform; thus in chloral poisoning give Cocaine, in Cocaine poisoning give chloroform and chloral."—Mosso, *Arch. Path. Pharm.*, June, 1887.

"Has an excito-motor nervo-muscular action on the great constrictor sympathetic nerve, and on all the smooth muscles; therefore useful in atonic gastro-intestinal maladies, as flatulent dyspepsia, &c."—M. Laffont, Paris, *Lancet*, June 21st, 1887.

"Stimulant in heart affections and typhoid fever, $\frac{1}{4}$ grain every two hours."—Dr. Costa, *Phil. Med. Times*, 1888.

Lanoline, containing 1 per cent. of the alkaloid, often prevents the pain of irritating ointments.

Earache: a 20 per cent. solution of the hydrochlorate often gives ease in otitis externa and otitis media.

Wherever a mucous membrane can be reached by it, the anæsthetic result is sure.—*Ephemeris*, *Squibb*, 1888, p. 1075.

Iso-cocaine, a local anæsthetic, is reported as more energetic than Cocaine.

Cocaethylin. $C_{18}H_{23}NO_4$, a homologue of Cocaine, scarcely administered in medicinal treatment, its effect being qualitatively the same as that of cocaine, but quantitatively of weaker action.

Egonin. $C_9H_{15}NO_3 + H_2O$, only employed in the artificial production of Cocaine.

Cocaine-Alum.

Crystalline compound of cocaine and aluminium sulphates. Local anæsthetic and astringent.

Cocaine Cantharidate.

Made by a reaction of 2 parts cocaine, 2 parts of soda, and 1 part of cantharidine. A white, odourless powder, with a peppery taste. Soluble in *hot* water, but not in alcohol. Action like sodium cantharidate in tuberculosis; has no urinary action. In hypodermic injections of $\frac{1}{100}$ gr. daily.

Cocaine Hydrochlorate.

Very soluble. Dose, $\frac{1}{8}$ to 1 grain: a few drops of a 2 per cent. solution has anæsthetic power on the vocal cords, as well as on the cornea and conjunctiva.

COCAINE HYDROCHLORATE—*continued*.

Liquor Cocainæ Hydrochloratis. Solution of Hydrochlorate of Cocaine.

Take of—

Hydrochlorate of Cocaine ... 33 grains, or 100 parts.

Salicylic Acid ... $\frac{1}{2}$ grain, or $1\frac{1}{2}$ parts.

Distilled water sufficient to produce 6 fl. drachms, or 1000 fluid parts.

Boil the water, add the salicylic acid, and then the hydrochlorate of cocaine; cool, and add water, if necessary, to produce the required volume.

Dose, 2 to 10 minims.—1890, *Add. to Brit. Pharm.*

Cocaine Lactate.

This salt is valuable in some bladder affections, 16 minims daily being injected of the following:—℞ *Cocainæ Lactatis*, 16 grains; Aq. Dest., $2\frac{1}{2}$ drachms.

Cocaine Nitrate. $C_{17}H_{21}NO_4 \cdot NO_3H$.

Occurs in the form of large colourless crystals, and is easily soluble in water. It is recommended by Dr. Lavanx in the place of cocaine hydrochlorate in all genito-urinary diseases where the use of silver nitrate is indicated; for strong solutions of silver nitrate can be injected without occasioning any pain if an equal quantity of Cocaine Nitrate be added.

Cocaine Phenate or Carbolate.

A topical application against catarrh and rheumatism; paint with 5 to 10 per cent. alcoholic solution. Insoluble in water, lymph does not readily wash it away. The *salicylate*, in white crystals, is used in doses of $\frac{1}{4}$ to 1 grain.

Coccolana. *A species of Guarea. Bolivia. N. O. Meliaceæ.*

Found by Rusby in 1886. The root is employed: it has been extolled by some New York physicians as an expectorant like ipecacuanha in bronchial catarrh.

Dose of fl. ext., 5 to 25 drops every three hours.

Codeine. $C_{17}H_{19}(CH_3)NO_3$. *Methyl Morphia* (latter is $C_{17}H_{19}NO_3$).

Codeia or Codeine bears the same chemical relation to Morphia as Caffeine does to Theobromine: it has been made artificially from Morphine. An opium alkaloid; white translucent rhombic crystals.

THERAPEUTICS. Sedative in cough, also in sleeplessness. Dose, $\frac{1}{4}$ to 2 grains. Valuable in all ovarian pain; $\frac{1}{2}$ grain in pill three times a day. In diabetes, decidedly checks the elimination of sugar in urine:

CODEINE—*continued*.

in gradually increasing doses, $\frac{1}{2}$ to 10 grains, three times a day (Dr. Pavy, *Guy's Hospital Reports*, vol. xv).

Codeine Phosphate.

Crystallises in four-sided columns. Unlike Sulphate or Chlorate, is soluble in four parts of water: 100 parts contain 70 of Codeine. For hypodermic injection: similar to morphia in action, but less toxic; suitable for sensitive patients. Dose, $\frac{1}{2}$ grain.

Codeine Valerianate.

An antispasmodic sedative. Dose, $\frac{1}{4}$ grain.

Colchicine. $C_{22}H_{25}NO_6$. *Active principle of Colchicum autumnale.* N. O. *Liliaceæ*.

Alkaloid. In all parts, but most abundant in the seed and in the root. Yellowish-white powder, of persistent bitter taste, soluble in water, alcohol, and chloroform.

THERAPEUTICS. Diuretic in gout, rheumatism, neuralgia, and Bright's disease. Dose, $\frac{1}{60}$ grain three times a day, in pills, or dissolved in water as "drops," or same dose injected hypodermically.

Colchicein, in white crystals, is a powerful brain and spine poison. *Colchicoresin* is brown and amorphous.

Collinsonia Canadensis. *Stoneroot.* *Horse-balm.* *North America.* N. O. *Labiata*.

Knotty, scarred, hard rhizome: is a tonic sedative alterative in gravel and catarrh of bladder and vagina, and in relief of hæmorrhoids. "Valuable in acute cystitis."—Dr. Shoemaker. American "eclectics" praise it for clergyman's sore throat. Aromatic stimulant and diuretic. Dose of fluid extract, 10 to 60 minims; tincture, 10 to 100 minims. *Collinsonin*, active principle; a resinoid. Dose, 2 to 4 grains.

Colocythin. $C_{44}H_{64}O_{13}$ (Walz). *From Citrullus colocynthis.* N. O. *Cucurbitaceæ*.

The bitter principle of Colocyth. A yellowish-white pure bitter powder, soluble in alcohol and fairly so in water; a glucoside, resolvable by dilute acid into grape-sugar and a resinoid. An effective hydragogue cathartic, internally and subcutaneously. Dose, $\frac{1}{20}$ to $\frac{1}{5}$ grain.

Colocythidin, or *Citrullin*. A resinoid of colocyuth, acting similarly to colocythin.

Conessine. $C_{12}H_{20}N$. (*See Holarrhena.*)

Conia. *Cicutine.* $C_8H_{15}N$. ($C_8H_{17}-N$. Hofmann.) *From Conium maculatum.*
N. O. Umbelliferae.

Liquid alkaloid, oily, colourless, with strong odour. Antispasmodic. Dose, $\frac{1}{4}$ grain, to be increased gradually. It has been produced artificially by A. Ladenburg by a most perfect synthesis. $C_8H_{17}N$ in French Codex, 1884.

Conia Hydrobromate. $C_8H_9(C_3H_7)N \cdot HBr$.

Crystalline, without colour, soluble 1 in 4 of water. Used in spasmodic affections, as whooping-cough and asthma. Dose, $\frac{1}{4}$ grain in 2 doses in 24 hours, gradually increased.

Convallamarin. $C_{23}H_{44}O_{12}$. *Active glucoside of above.*

White crystalline, sweet-bitter powder, easily soluble in water and alcohol, not in ether.

THERAPEUTICS. A powerful cardiac stimulant. Dose, $\frac{1}{10}$ grain, to be increased with great caution, as it is very powerful.

Convallarin. $C_{34}H_{62}O_{11}$. Glucoside of above. Crystalline, soluble in alcohol. Purgative, but seems of no value; resembles saponin. Dose, 3 to 4 grains.

Convallaria Majalis. *Lily of the Valley. N. O. Liliaceae. (French "Muguet.")*

The rhizome, whole herb, and flowers are used, but the fresh root has most power.

THERAPEUTICS. In dropsy and as a heart tonic. It acts also as a strong diuretic. It does not injuriously affect either the digestive or the cerebro-spinal system, but increases appetite and improves intestinal action.

Its use seems indicated where the continuation of digitalis disturbs the functions of the stomach and proves cumulative: also in paroxysmal palpitation due to nervous causes, and rapid irregular heart action dependent on debility. Dose of tincture: 20 minims stimulate the heart; 1 drachm acts as a sedative to it. Dose fluid extract, 5 to 30 minims; soft extract 2 to 8 grains. "An effective treatment is 24 minims of fluid extract in 24 hours to begin with."

Copper Arsenite.

An intestinal remedy in cholera, diarrhoea, and dysentery, in mild and severe cases, especially before the inflammatory stage. In small doses it has no toxic effect, but stimulates the intestines to

COPPER ARSENITE—*continued*.

repel injurious matter. Dose: dissolve $\frac{1}{100}$ grain in 4 ounces of water, and sip a teaspoonful every ten minutes: for a child, use 8 ounces of water.

Copper Resinate.

Compound of cupric sulphate and resin, introduced as a remedy against fissured hoofs in veterinary medicine.

Coptis Tecta. *India. N. O. Ranunculaceæ.*

The rhizome contains large, yellow, woody bundles. A pure tonic bitter, containing 8 per cent. of berberine.

Coptis Trifoliata. *Gold Thread. U. States and Arctic America.*

A small herb: its golden-yellow filiform rhizome contains berberine.

Cornus Florida. *C. circinatus. Dogwood. N. America. N. O. Cornaceæ.*

Root-bark deprived of the furrowed corky layer. A tonic febrifuge; fluid extract, dose 20 to 60 minims.

Cornin. The eclectic concentration. Dose, 1 to 3 grains.

Cornutine.

The alkaloid from ergot, heretofore used with success in atonic hæmorrhages of the uterus after labour, is now also successfully employed in hæmorrhage of the urethra and bladder. The daily dose is 0.01 gramme ($\frac{1}{4}$ grain), divided into several instalments. The citrate is also employed.

Corsican Moss. *Alsidium (Fucus) helminthocorton. Mediterranean. N. O. Algæ.*

Generally seen in Continental pharmacies as a brown mass, composed of many different Algæ, but principally the above. Used as a vermifuge for children; $\frac{1}{4}$ to 1 ounce in decoction.

Gelosin is its mucilaginous substance, which can absorb 500 times its weight of water; this jelly can be used as a cataplasm with the addition of medicinal substances.

Agar-agar of Singapore. A white Alga—*Encheuma spinosum*. Used as a gelatine by the Chinese, Yang-tsai.

Agar-agar of Japan. *Gelidium corneum*, var. *spinosum*.

Japanese isinglass: sold in Bombay as Chinaighás. The gelose is dried in light four-sided sticks of whitish membrane. Under the

CORSICAN MOSS—*continued*.

name of Thao, used in France for silk dressing. An excellent medium for the cultivation of bacilli.

Corydalin. *From Corydalis Formosa. Turkey Pea. N. O. Fumariæ.*

A resinoid, prepared from the root of this plant.

Tonic alterative; dose, 1 to 3 grains. *Turkey Corn*, also employed, is the mealy tuber of *Corydalis canadensis*. *Corallorhiza odontorhiza* is Crawley root.

Coto Bark. *South America.*

Two sorts: the true, from interior of Bolivia, contains Cotoin; it is reddish brown, resembling some cinchonas, flat, heavy, and also in quills; the anterior layers are the darkest.

The flowers, fruit, and bark have been considered by Dr. Karl Schumann, of Berlin, to be those of *Drimys Winteri*, var. *granatensis*, a native of Venezuela. "This may be called Coto in Venezuela; it has nothing to do with true Coto, nor with Paracoto."—E. M. Holmes.

"A bark of unknown origin obtained from Bolivia. In flat or curved pieces about one centimetre in thickness, and of variable length. The taste is aromatic and very biting. The transverse section is of a cinnamon-brown colour externally, and darker towards the inner surface."—B. P. C. Formulary. Another sort produces an inferior crystalline body, Paracotoin.

THERAPEUTICS. Coto is employed in diarrhœa, rheumatism, and gout; also in night-sweats of phthisis. Dose of powder, 5 grains; of fluid extract, 5 to 15 drops, four times a day; of tincture (rect. 1 in 10), 10 to 60 drops.

Cotoine. $C_{22}H_{18}O_6$. *Alkaloid of Coto.*

Pale yellow powder, with sharp taste, and easily soluble in alcohol and chloroform.

THERAPEUTICS. In diarrhœa or catarrh of the intestinal mucous membrane. Dose, for adults, $\frac{1}{2}$ to 1 grain per diem, hypodermically injected, in a solution of 1 part in 4 of acetic ether, or internally, $\frac{1}{2}$ to 1 grain in syrup every three hours, in diarrhœa, especially that of phthisis and cholera.

Cotyledon Umbilicus. *Indigenous. N. O. Crassulacæ.*

Externally to destroy warts, and internally in hysteria and epilepsy. The solid and fluid extracts are in use.

Commurin. $C_9H_6O_2$. From Tonquin Bean. Guiana. N. O. Leguminosae.

The odorous principle of the fruit of *Dipterix odorata*, Tonquin bean (about 1 per cent.). Crystallises in shining colourless needles, with fragrant odour; soluble in alcohol and fats. Now produced artificially. Covers odour of iodoform, in proportion of 2 grains to the drachm.

The odoriferous principle of the Tonquin bean is found also in *Asperula odorata* (woodruff), *Melilotus officinalis*, &c. The Tonquin bean is called Cumaru in the Brazils.

Creolin.

Creolin consists of a mixture of the sodium salts of some resinous acids with creolin oil and pyridines. It is made from pit coal by distillation, and is a brownish-black syrup, insoluble in water. It quickly forms with it a brownish or milky emulsion; mixes with oil and glycerine, and is soluble in absolute alcohol, chloroform, and ether. It is a powerful germicide like carbolic acid.

THERAPEUTICS. In wounds, &c., it is deodorant, and promotes granulation. Applied as a lotion of 2 parts to 100 parts of water, or a 5 per cent. ointment with lanoline. "Internally, dose is 5 drops in typhoid fever, putrid dyspepsia, and catarrh of bladder."—*Brit. Med. Journ.*, November 7th, 1889.

Creosal. *Creosote Tannate.*

This contains 40 per cent. of tannic acid. Dark brown, hygroscopic powder; soluble in water, alcohol, glycerine, and acetone; insoluble in ether; contains 40 per cent. of tannic acid. Recommended in powder or solution in treatment of air-passages as an antiseptic astringent. Daily dose, 45 grains, representing about 27 grains of creosote.

Creosotal. *Creosote Carbonate.*

Creosote (91 per cent.) when combined with carbolic acid gives a neutral oily liquid, with mild flavour and little odour, and no caustic properties. Daily dose, 5 drops to 3 teaspoonfuls, mixed with yolk of an egg; given alternately with guaiacol carbonate (guaiacol is the main constituent of creosote) in tuberculosis or phthisis; appetite, strength, and weight are generally said to increase. Creosotal

CREOSOTAL—*continued*.

is an amber-coloured oily liquid at ordinary temperatures, becoming more fluid upon warming, insoluble in water, but readily soluble in alcohol, ether, and chloroform. It splits up in the digestive track into its component parts, and creosote is found in the urine.

Creosote-Calcium Hydrochlorophosphate.

Antitubercular and antiscrofulitic. Dose, 0.1—0.3 grm., in emulsion.

Cresalol. *Ortho-, Meta-, and Para-cresol Salicylates.*

Bulky crystalline powders, insoluble in water, soluble in alcohol. Powerful antiseptics, but milder and less poisonous than carbolic acid; also in articular rheumatism. Dose, 1 to 2 drachms daily in divided doses internally.

Cresol. (*See page 15.*)**Cresol Iodide.** *Ortho-cresol Iodide.* $C_6H_3.CH_3.I.OH$.

Is one of the numerous substitutes for iodoform. (Cresol is the prominent constituent of crude carbolic acid in varying proportions of the ortho-, meta-, and para-cresols.) It is a fine pale yellow powder with a pronounced odour, but agreeable in comparison with iodoform; insoluble in water. All compounds of cresol are powerful antiseptics, but all have the disadvantage of a very variable composition, of adhering to or rendering slippery the operating instruments and hands, and of readily oxidising in the air. These disadvantages apply to all the various compounds of cresol, known as lysol, solveol, solutol, saprol, &c.

Cresotinic Acid. *Acid Cresoticium. Para-cresotinic Acid.*

Homologue of salicylic acid, obtained by the action of metallic sodium and carbonic acid on cresol. It is in the form of white needles, which melt at $151^{\circ} C.$, almost insoluble in water, soluble in alcohol and ether. Use: as an antipyretic this acid is inferior to salicylic acid, but does not so much affect the digestion, nor does it produce the congestion of the mucous membranes of the stomach sometimes caused by salicylic acid.

Cresyl.

Is a complex body containing creosote, heavy oils, 50 per cent. of cresylic acid, and 20 per cent. of naphthalene. A non-toxic disinfectant, for external use, 5 and 10 per cent. solutions. Soluble in water.

Crotalus.

A remedy prepared from the venom (which consists of a globulin and a peptone-like albumose proteid) of the rattlesnake (*Crotalus horridus*); has been recommended in diphtheritic scarlatina. Its active principle is Crotaline. The third (homœopathic) dilution is used, 3 drops for a dose, in a spoonful of water every three hours; or for subcutaneous injection, 3 to 5 drops of first centesimal attenuation.

Cubebin.

In acicular crystals. *Cubebic acid* is another resin; an amorphous white powder, used for gonorrhœa. Dose, 15 grains; maximum daily dose, 1 drachm.

Cundurango Blanco. *About ten different plants go under this name in New Grenada.*

Bark. Small irregular broken quills, with pale brown fibrous outer, and still paler starchy, pulverulent inner bark.

THERAPEUTICS. At first brought out as a cure for cancer, it fell into disuse, but has lately been used on the Continent as an alterative tonic. Dose, 1 to 3 drachms of the powdered bark or its fluid extract. Inserted in 1882 edition of German Pharmacopœia as from *Gonolobus cundurango*, *N. O. Asclepiadaceæ*.

Cupratin.

Organic copper compound analogous to ferratin, containing 6 per cent. of cupric oxide. Nervine.

Curare; Woorare. *Ourari. South America. Strychnos species. N. O. Loganiaceæ.*

First brought to Europe by Waterton. The dark, hard watery extract of several plants, principally *Strychnos castelneana*, *Cocculus toxiferus*, and a poisonous arum, "Taya" (some say a pepper). That of British Guiana mainly consists of the inspissated juice of *Strychnos*

CURARE; WOORARE—*continued*.

tozifera. It is considered, if fresh and active, a remedy for rabies. Dose, $\frac{1}{10}$ to $\frac{1}{4}$ grain; hypodermic solution, 1 grain in 12 of water; inject 1 to 3 minims.

Curarine, $C_{18}H_{35}N$, is a crystalline, intensely bitter alkaloid from the above, distinct from strychnine, but very poisonous. Its sulphate has been employed instead of Curare, in dose of $\frac{1}{100}$ grain.

Curcas Purgans. *Jatropha curcas*. *Physic Nuts*. *Africa*. *N. O. Euphorbiaceae*.

Blackish seeds. Used by natives as a purgative and external stimulant; contains 25 per cent. of an oil similar to croton oil, having a tonic albuminoid like Ricin; in Indian pharmacopœia.

Cutol. *Aluminum Borotannate*.

Light brown powder, insoluble in water. Used as an antiseptic in skin troubles where an astringent action is also desired. It contains tannin 76 per cent., alumina 13.23 per cent., boric acid 10.77 per cent.

Cutol (soluble). *Aluminum Borotannatartrate*.

Is obtained by combining cutol with tartaric acid. Used in the same class of cases as cutol.

Cypripedium. *From root of Cypripedium pubescens and C. acaulis*. *Willd Lady's-slipper*. *N. O. Orchidaceae*.

An electric resinoid, or extractive concentration, from the long scarred rhizome. Nervine narcotic. For ladies' or children's nervous affections, or where opium is not tolerated. Dose, 1 to 4 grains.

Damiana. *Turnera microphylla, var. aphrodisiaca*. *Mexico*. *N. O. Turneraceae*.

Small sinuate oval leaves, having strongly-developed midrib, on slender reddish stems, with heavy odour and warm taste. The leaves and flowers have been extolled as repairing the generative powers, but it is generally believed without much foundation.

THERAPEUTICS. Damiana is a stimulant tonic, strengthening possibly the bladder, kidneys, &c. Dose, of fluid extract, a teaspoonful several times a day. "Good in some cases of diminished sexual power, where such does not depend on organic disease."—E. H. Fenwick, *Lancet*, September 24th, 1887.

Daturine. $C_{17}H_{23}NO_3$. *Alkaloid of Datura stramonium. N. O. Solanaceae.*

Very light, white, thin prisms, bitter and poisonous. It is a mixture of atropine and hyoscyamine (Maisch), and similarly dilates pupil of eye. Dose, $\frac{1}{100}$ to $\frac{1}{10}$ grain, in solution with diluted sulphuric acid; this forms the sulphate.

Delphina. *From seeds of Delphinium staphisagria.*

A whitish amorphous alkaloid, insoluble in water but soluble in alcohol.

A cardiac poison, $\frac{1}{4}$ grain in pills several times a day. In alcoholic solution or ointment, 1 in 20, externally in neuralgia.

Dermatol.

Basic gallate of bismuth; yellow odourless powder. A non-toxic drying antiseptic for dusting wounds, alone or 20 per cent., in powder or ointment.

Dermol. *Bismuth Chrysophanate.*

A dermic. Obtained by treating oxide of bismuth with chrysophanic acid. An amorphous yellow powder, insoluble in water, alcohol, or ether.

Diabetin, or Lævulose.

Is in a white dry crystalline form. Although sweet, and a sugar in its physiological effects in so far as nutrition of the system goes, it does not act like sugar in increasing the amount of sugar in the blood or urine in patients suffering from diabetes.

Antidiabetin is a French mixture of saccharin and mannite to replace sugar for diabetic patients.

Diamine Hydrazine.

Small colourless crystals, analogons to hydroxylamine hydrochloride; a powerful reducing agent. Destroys mould, germs, bacteria, &c.

Diaphtherin. *Oxy-quin-aseptol.* $HO.C_9H_6NH.O.SO_2.C_6H_4.O.NHC_9H_6OH$.

Prof. R. Emmerich, of Munich, has produced an antiseptic which he called Oxy-quin-aseptol, or Diaphtherin. It may be regarded as a compound consisting of two molecules of oxy-quinoline and one molecule of aseptol (phenol-sulphonic acid). A yellow powder with carbolic-like odour, and soluble in one part of water; it is a potent

DIAPHATHERINE—*continued*.

bactericidal non-caustic antiseptic for surgical dressings. $\frac{1}{2}$ —1 per cent. solutions were found most eligible, and free from irritant effects. The American *Diaphtherine* is made by Victor Koechl & Co.

Diaphthol.

Diaphthol (Quinaseptol) is the name given to ortho-oxyquinoline-metansulphonic acid. It occurs as yellowish-white crystals or powder, difficultly soluble in cold water. Diaphthol is possessed of considerable antiseptic power, and is practically non-toxic. The remedy is readily tolerated by the gastro-intestinal mucous membrane.

Diconchinin. *Dextro-quinine.*

This cinchona alkaloid is used in the United States as a substitute for quinine.

Digitalein. *Amorphous Glucoside. From Digitalis purpurea. N. O. Scrophulariaceae.*

Very soluble in water; with effects resembling saponin: crystallisable.

Digitalin. $C_5H_8O_2$ (?).

Light, white needle crystals, in clusters; very bitter. The active crystallisable glucoside, sparingly soluble in water, stimulates the cardiac muscles. Dose, $\frac{1}{50}$ grain in pill. Also in an amorphous yellowish powder, which the French Codex of 1884 orders, unless the crystalline is prescribed. *Digitin* is another of the non-poisonous glucosides of *Digitalis*: it contracts the kidneys, with increased secretion of urine.

Digitoxin and *Digitonin* are cardiac poisons.

Phrynin, from the glandular secretion and dried skin of the toad (*Bufo viridis* and *B. cinereus*), is similar in its effects to Digitalin.

Di-iodoform. C_2I_4 .

Di-iodoform has been introduced as a succedaneum of iodoform. It is prepared by treating periodized acetylene, C_2I_2 , with excess of iodine. It crystallises in fine yellow, nearly odourless needles, melting when pure at 192° C. (397.6° F.), and decomposing when suddenly heated beyond that point. It is insoluble in water and sparingly soluble in alcohol or ether.

DI-iodoform—*continued*.

It turns brown under the influence of light, and then gradually emits a characteristic odour; it should, therefore, be kept in dark-coloured bottles away from the light.

Dioscorea Villosa. *Colic Root; Wild Yam. North America. N. O. Dioscoreaceae.*

The long, curved, hard rhizome contains an acrid principle similar to saponin.

Expectorant and emetic in doses of 10 grains and $\frac{1}{2}$ drachm.

Dioscorin, the eclectic resinoid, is given in doses of 1 to 4 grains.

Diospyros Virginiana. *Persimmon. N. America. N. O. Ebenaceae.*

A large tree. The unripe fruit is strongly astringent, containing tannic acid and pectin; ripe (resembling an orange), and dried with sugar, it is used by the Chinese as a dessert fruit. Dose of fluid extract, 1 to 2 drachms.

Diovilhumia.

Made by the Dios Chemical Company, St. Louis, U.S.A. It is a dark brown liquid, containing Viburnum, Aletris, Helonias, &c. An emmenagogue and antispasmodic uterine tonic. Dose, 2 to 4 drachms in hot water every one or two hours.

Diphenylamine Sulphate. $[(C_6H_5)_2NH]_2SO_4H_2$.

It is a white crystalline powder of an odour *sui generis*; easily soluble in alcohol. In therapeutics it is not used, but it is applied in chemical analysis as an excellent reagent for nitric and nitrous acid, to which it imparts a blue colour.

Dita Bark and Ditamine. (*See Alstonia Scholaris.*)

Dithion.

Mixed sodium salts of the two dithiosalicylic acids. Used by veterinary surgeons in 5 per cent. solutions for irrigating wounds, as dusting powder or as 10 per cent. salve in harness sores, erysipelas, and strangles. Excellent prophylactic in foot-and-mouth disease. Dose, 6 to 14 drachms mixed with the food.

Diuretin. *Sodio-theobromine Salicylate.*

This compound contains theobromine and salicylate of sodium. It is a whitish powder of a sweetish, saline, alkaline taste, soluble in half its weight of water. It must be carefully kept from the air. It should contain 44.5 per cent. of theobromine.

DIURETIC—*continued.*

A diuretic, like caffeine, but acts only on kidneys (Dr. Gram, of Copenhagen). Dose, 15 grains several times a day.—*Pharm. Journ.*, December 28th, 1889.

Dogwood, Jamaica. *Piscidia erythrina.* S. America and W. Indies, N. O. Leguminosæ.

This shrub has bright red blossoms; in 1844 its anodyne properties were recognised in the United States.

Root bark; in thinnish, tough, fibrous pieces, brown and odourless. Used in Jamaica to stupefy fish.

THERAPEUTICS. A powerful calming sedative, especially in mental worry and mania; relieves neuralgia, uterine colic, headache, &c.; resembles the effect of large doses of bromide of potassium, without bad after-effects; produces internal heat, with profuse perspiration and deep sleep. [*Piscidin* is the crystalline active principle. Crystallising in colourless prisms, soluble in chloroform, but scarcely in cold alcohol or water.] Dose: fluid extract, 20 to 30 drops, to be carefully increased; tincture (1 part in 4 rect. spirit), 1 fluid drachm.

As an anodyne, of service in facial neuralgia and toothache.

For dogwood bark of the United States see *Cornus Florida*.

Dorstenia Contrayerva. N. O. Moraceæ (by some N. O. Urticaceæ).

Root, hard and solid. Warm aromatic in fevers. Dose of powdered root or fluid extract, $\frac{1}{2}$ drachm. Botanically curious as having, on an irregular quadrangular fleshy receptacle, male and female flowers.

Doundaké. African Peach Root. *Quinquina africana.* W. Africa. N. O. Rubiaceæ.

A shrub with edible fruit. The bark, principally from Sierra Leone, is greyish with fissures in the *suber*; striated and yellowish internally.

CHARACTERISTICS. The corky layer is astringent; the yellow parenchyma is bitter, from an alkaloid crystalline substance named *Doundakine*, and two colourless resinoids. These are soluble in diluted spirit, such as wine. It also contains a yellow colouring matter.

This plant is not identical with *Sarcocephalus esculentus*.

THERAPEUTICS. Its astringent and tonic febrifuge effects resemble those of cinchona bark, and it may be given in similar doses.

Drosera Rotundifolia and D. Longifolia. *Sundew. Indigenous.*
N. O. Droseraceae.

These little carnivorous plants, containing citric acid and an acrid resin, have been recommended in asthma, bronchitis, and other diseases of the air-passages. Dose of fluid extract, 5 to 20 drops every hour or two. Tincture (1 in 10 proof spirit), dose, 5 to 15 minims.

Duboisia Hopwoodii. (*See Pitouri.*)

Duboisia Myoporoides. *Australia. N. O. Solanaceae, tribe Atropaeae.*

Largish thin pale-green leaves, with the veins strongly marked; in commerce mixed with pale-coloured stems. Supplants atropia, in eye practice, as a dilator of the pupil. Dose, solid extract, 10 grains to 1 ounce of water. [Its alkaloid *Duboisine* is probably hyoscyamine, or sometimes hyoscyne or scopolamine (Maisch); dose, $\frac{1}{2}$ grain of the sulphate for hypodermic injection, or $\frac{1}{100}$ grain internally.]

Dulcine. *Paraphenetolecarbamid.* $\text{CO}(\text{NH})\text{C}_6\text{H}_4\text{O}\cdot\text{C}_2\text{H}_5\cdot\text{NH}_2$.

White crystals melting at 173°C ., readily soluble in hot water. Is said to compete as a sweet substance with saccharin. Ewald prescribes it mixed with mannite in proportion of 1 : 9 against diabetes.

The sweetness of Dulcine in proportion to sugar is as 1 : 200 (saccharin to sugar as 1 : 350). Paraphenetolecarbamid is also sold under the name of *Sucrol*.

Elaterin. $\text{C}_{20}\text{H}_{25}\text{O}_5$.

Active neutral principle of *Elaterium*; small colourless shining crystals, or white powder. Insoluble in water, soluble in alcohol and chloroform. In constipation. Dose, $\frac{1}{50}$ to $\frac{1}{5}$ grain in pill or powder.

Embelia Ribes. *India. N. O. Myrsinaceae.*

An aromatic brown fruit, about the size of pepper.

For tapeworm, 1 to 4 drachms of the powdered fruit in warm milk. *Embelic acid*, in fine orange-red crystals, is the active principle.

Ammonium embelate has powerful tænicidal properties; 3 to 6 grains, fasting, with syrup; castor oil before and after.

Emetine. $\text{C}_{20}\text{H}_{30}\text{N}_2\text{O}_5$ (?). *From Cephaëlis ipecacuanha. N. O. Rubiaceae.*

Alkaloid, the active principle, discovered in 1817, bitter and amorphous, without odour or colour: it exists with Cephaëline, about 2 per cent. in the root-bark (the soft, thickened active portion); soluble in chloroform, but little soluble in ether or water. A powerful emetic. Dose, $\frac{1}{5}$ grain. [*Emetin*—soluble extractive: emetic dose. $\frac{1}{2}$ —1 grain; expectorant, $\frac{1}{10}$ grain.]

Emol.

Emol is allied to fuller's-earth. It contains steatite and minute traces of lime and oxide of iron. In the purified state it forms a soft, impalpable powder, having a delicate pink tint; it exerts an immediate softening influence upon the hard water of limestone districts. Used with warm water it is said to act as a natural soap, cleansing the hands and, at the same time, leaving them soft and smooth.

Enterol

Is a mixture of the three isomeric cresols. It is caustic and possesses a disagreeable odour; therefore best administered in pill form, or in capsules. In gastric and intestinal troubles Enterol acts as a strong antiseptic on the products of decomposition in intestines.

Epidermin.

A German preparation, used as an artificial skin for wounds and abrasions. It is a smooth white mixture, producing a thin flexible pellicle. It is well imitated by triturating in a warmed iron mortar 15 parts of melted white wax with 15 parts of powdered acacia until a thorough trituration is accomplished; 15 parts of distilled water and 15 parts of glycerine are then mixed and brought to boiling. This is added at once to the contents of the mortar, and the whole stirred constantly until cold.

Collesin is Prof. Schiff's skin-varnish.

Ergotin.

Dark brown aqueous extractive from Ergot (the diseased grains of *Secale cereale*, attacked and altered by the fungus *Claviceps purpurea*); produces uterine contractions: this is the true mixed extract, made by the process of Bonjean, of Chambéry, probably containing all the sclerotic acid unaltered. [The Ergotin of Wiggers, also an extractive, has fallen into disuse.] Valuable in relieving internal hæmorrhage, epistaxis, and menorrhagia. Dose, 2 to 5 grains; or hypodermically, 1 to 2 parts of water.

Kobert found Ergotine (acid) or Ergotinic acid, Sphaecelinic acid, and Cornutin (basic), all active. The first is a narcotic poison, but without effect on the uterus; the second has a powerful effect on the uterus; so has the third, a strong active poison; dose, $\frac{1}{60}$ grain hypodermically. Cornutin is the active ingredient in alcoholic extracts of Ergot (Maisch), see page 71.

Ergotine. $C_{50}H_{52}N_2O_3$ (?).

This alkaloid has been used hypodermically in doses of $\frac{1}{10}$ grain; in a solution of 1 part in 10 of glycerine, in hæmoptysis: it is probably identical with the alkaloid Ecboline. Wenzell produced it as a brownish shining, hard, amorphous substance. *Ergotinine* has been produced as a crystallised alkaloid; dose, $\frac{1}{200}$ to $\frac{1}{100}$ grain; in French Supplementary Codex: its soluble grey citrate also used in same dose hypodermically. Ergotinine is probably present in Ergotine, and possibly identical with Picro-sclerotine. Ergot also contains 30 per cent. of inert fixed oil.

Ergotole.

A proprietary fluid extract of Ergot, made by Sharpe and Dolme, U.S.A. It is a uterine stimulant. Dose, 5 to 10 minims hypodermically, or 5 to 30 minims by mouth. It is claimed for Ergotole that it does not produce irritation or nausea.

Erigeron Canadensis. *Fleabane. N. America. Established and growing wild in some parts of England. N. O. Composite.*

A bristly hairy plant. Tonic diuretic. In dropsy and kidney disease. Its oil, 15 minims every four hours, in sugared water, is given in diarrhœa with debility. Dose of fluid extract, 60 minims.

Eriodictyon. (*See Yerba Santa.*)

Erythrol Tetranitrite.

A substitute for nitro-glycerine in heart diseases.

Erythrophlæum. (*See Casca.*)

Erythrophleine. *Alkaloid of Casca or Sassy Bark.*

The poisonous active principle is a colourless crystalline alkaloid, soluble in water. Emetic and narcotic. A heart tonic: the soluble hydrochlorate is employed and has an action similar to Digitalis and Strophanthus. Dose, $\frac{1}{20}$ grain.

Eschscholtzia Californica. *California Poppy. California. N. O. Papaveraceæ.*

An annual with abundant rich, smooth foliage, dividing into linear segments; flowers reddish yellow; juice clear, and with odour of hydrochloric acid; said to contain a minute quantity of morphine. Its use is not in any case followed by disturbance of the stomach or constipation. Action: soporific, analgesic. Uses: substitute for opium preparations, especially for children. Dose of fluid extract, 15—30 drops.

Eserine. (*See Physostigmine.*)

Ethoxycaffeine. $C_{10}H_{14}N_4O_3$.

In white acicular crystals, melting at $138^{\circ}C.$; insoluble in water, slightly soluble in alcohol and ether: prepared by treating caffeine with excess of bromine, and adding sodium to this mono-brom-caffeine to combine with the bromine.

THERAPEUTICS. It is so strong a sedative that it may be considered as a narcotic: it acts on the cerebro-spinal system. Strongly recommended for headache (*Lancet, July 3rd, 1886*). Dose, 4 grains.

Ethyl Bromide, or Hydrobromic Ether. C_2H_5Br .

An anæsthetic; colourless, very volatile heavy liquid, with agreeable odour; it must be quite *fresh*. Dose, for inhalation, 1 to 6 drachms.

Ethyl Chloride. *Chloric Ether.* C_2H_5Cl .

Ethyl chloride is a gas at the ordinary temperature, but is easily condensed, and then appears in form of a colourless liquid of agreeable ethereal odour, boiling at 10° to $12^{\circ}C.$ In consequence of its low boiling-point and rapid evaporation, it is used as a local anæsthetic.

For medical purposes Ethyl Chloride is brought on the market in sealed glass tubes, holding about 10 grms., and drawn out into a capillary tube, the end of which is broken off just before use. By holding the tube in the hand the liquid is ejected in a fine stream of vapour or spray, and if this is held against some part of the skin of the patient, local anæsthesia is produced. The best effect is obtained by applying the spray at a distance of 4 to 6 inches.

Care must be exercised not to open the tubes or apply the agent in the neighbourhood of a flame.

Coryl and *Anestile* are mixtures of ethyl and methyl chlorides.

Ethyl Iodide. C_2H_5I .

A colourless liquid, smelling of ether. The vapour, inhaled, relieves the dyspnœa of bronchitic asthma by producing expectoration. Dose, 5 drops, five to eight times a day, on a handkerchief.

Ethylene Bromide.

Used in epilepsy (for which bromine is the principal remedy). 1 to 3 drops several times a day, largely diluted.

CAPSULES. Ethylene bromide, 3 drops; sweet almond oil, 6 drops. 2 to 4 such capsules two to three times daily in epilepsy.

Ethylene Dichloride. $C_2H_4Cl_2$. *Ethene Chloride; Dutch Liquid.*

An anæsthetic, resembling chloroform in appearance.

Eucaine. $C_{19}H_{27}NO_4$.

A local anæsthetic discovered by Dr. Kiesel, of Berlin. It is a methyl ester of a benzoylated oxypiperidine-carboxylic acid. It is employed like cocaine, as a subcutaneous injection, 1 part to $6\frac{1}{2}$ sterilised water; 5 to 15 grains Eucaine can be injected in dental practice about one third of an inch from the tooth to be extracted, and the heart is not affected by it.

Eucalyptene.

This name has been given to the tonic, bitter, amorphous principle of *E. globulus*. In malarial fevers; dose, 1 to 3 grains.

Eucalyptcol.

Is an antiseptic obtained by M. Anthoine by the treatment of eucalyptus oil with hydrochloric acid, producing chemically eucalyptene bichloride in colourless scaly crystals, with an odour resembling camphor, and almost without taste. A small quantity only is necessary to check ordinary putrefactive changes, but it apparently does not retard the digestive ferments. The dose for adults in capsules is about 15 to 24 grains in twenty-four hours, divided so as to come between meals; for children, about 4 to 12 grains.

Eucalypti Gummi. *Eucalyptus kino.* *Red Gum.* *Victoria.*

"A ruby-coloured exudation."—1890 add. to B.P. 80 per cent. soluble in cold water, almost entirely so in alcohol.

An astringent, more demulcent than kino or catechu, as a gargle for sore throats and in chronic dysentery. Dose: gum, 2 to 10 grains; tincture, $\frac{1}{2}$ to 1 drachm; fluid extract, 10 to 60 drops; syrup (1 in 3), 10 to 50 drops frequently. [Black boy gum, reddish and slightly aromatic, used as an application to wounds, is produced by *Xanthorrhœa hastilis*; Gum Accroides, or Botany Bay resin, used in lacquering metals, by *X. arborea*, both "grass trees," N. O. Liliacæ; non-soluble Botany Bay kino from *Eucalyptus resinifera*.]

The following species of Eucalypti are said to satisfy the B.P. tests:—*E. amygdalina*, *E. eugenoides*, *E. piperita*, and seven others making a clear ruby solution in water; not friable, but in angular pieces. *E. rostrata*, *E. corymbosa*, *E. odorata*, and seven others making a turbid solution in water, but clear on boiling; more or less friable.—*Ph. Journ.*, xx, pp. 231—323.

EUCALYPTI GUMMI—*continued*.

“The solubility of the gum has reference to age and to exposure.”—G. M. Holmes.

Eucalyptol. *Cineol.* $C_{12}H_{20}O$. From *E. globulus*, &c.

It forms the larger portion of the essential oils of Eucalypti; colourless, mobile fluid, with aromatic odour and pungent taste. Soluble in alcohol, scarcely in water. It is separated and purified; for inhalation in bronchitis, 2 drachms to pint of hot water. An antiseptic, and antipyretic. [Treated with anhydrous phosphoric acid, the liquid colourless hydrocarbon *Eucalyptene* is produced.] Dose, internally 5 minims in capsules, or in mucilage; externally for rheumatism and neuralgia.

In French Cod. Supp. with synonyms of *Terpane* and *Cajeputol*.

Eucalyptus Amygdalina. *Australia.* *N. O. Myrtaceæ.*

This oil contains the irritating Phellandrene (Martindale). Essential oil; antiseptic; externally in rheumatism, internally for coughs, 5 drops on sugar. “Its inhalation is valuable in whooping-cough.”—Dr. W. Hardwicke, *Lancet*, November 2nd, 1889. [*E. globulus* gives a good oil for internal use, tonic and stimulant, 5 to 10 drops; *E. dumosa* and *E. oleosa* also give good oils, both in appearance and fragrance; *E. mannifera* and *E. viminalis* (Hanbury), a saccharine substance called Australian Manna. *E. maculata*, var. *citriodora*, gives a fragrant citron-scented oil, but not containing Eucalyptol.]

Listerine is an American proprietary fluid antiseptic, said to contain Thymol, Eucalyptus, *Mentha arvensis*, Benzoic and Boracic Acids, &c. *Euthymol*, *Borine*, and *Baptolene* are other compound antiseptic solutions.

Kreplinum is a tincture of Quillaya bark, with small quantities of antiseptic, aromatic, volatile oils. *Thymozone* is a combination of Eucalyptus globulus, Thymus vulgaris, Pinus sylvestris, benzoic, boric, and salicylic acids. A colourless, non-poisonous, and non-irritating germicide, deodoriser, and detergent.

Eucalyptus Globulus. *Blue Gum.* *Australia.*

Large, bluish-green, lanceolate, scythe-shaped leaves. In intermittent fever. Dose: tincture, $\frac{1}{2}$ to 2 fluid drachms; fluid extract, 10 to 30 drops; solid extract, 2 to 10 grains. In albuminuria and post-scarlatinal nephritis, 10 drops of fluid extract in water every four hours. Also the essential oil, *see above*. The fluid extract is used locally in diphtheria.

Euchlorin.

Euchlorin is the name given to a solution of 18 to 30 grains of potassium chlorate and 10 drops of hydrochloric acid in 8 fl. oz. of water. It is alleged to have been successfully employed against diphtheria, in the form of gargles, sprays, and paints. To children unable to gargle, a few drops internally every half-hour, and the remedy locally in spray form.—Dr. L. D. L. Ellis.

Endoxine.

Endoxine is the bismuth salt of tetra-iodophenol-phtalein. It is a reddish-brown, odourless, and tasteless powder, insoluble in water. This bismuth compound is specially indicated for internal use in stomacic and intestinal troubles. Endoxine is taken by patients of all ages, does not disturb the stomach, and even in large doses of 15 grains thrice daily is tolerated well.

Eugenol. *Eugenic or Carophyllic Acid.* $C_{10}H_{12}O_2$.

The principal portion of oil of cloves. Exists also in Pimento, Canella alba, &c.

CHARACTERISTICS. An oily, colourless liquid, becoming brown by age, insoluble in water, and with strong aromatic odour and taste. Chemically it is allied to phenol.

THERAPEUTICS. An antiseptic, but inferior as a febrifuge to other antipyretics; used also in dentistry.

Dose, 15 grains, three times a day, dissolved in alcohol, and much diluted with water.

Eugenol Acetamide.

The amide of eugenolacetic acid. Small brilliant scales or needle crystals; soluble in water and alcohol. Used externally in dentistry. Antiseptic and local non-caustic anæsthetic.

Enonymin. *Extractum Euonymi Siccum.* 1890 add. to B.P.

A powerful hepatic, but a feeble intestinal stimulant. It contains the crystallisable glucoside of the same name, sparingly soluble in water. Dose, 1 to 4 grains; an aperient ought to follow it. The brown is considered somewhat stronger than the green. Official in the B.P. and U.S.A. Pharmacopœia.

Euonymus Atropurpureus. *Wahoo. N. America. N. O. Celastraceae.*

The dried root bark is in the 1890 add. to B.P., and is used for making the dried extract, or Euonymin. In quilled pieces, ashy grey outside, whitish inside; fibrous fracture, faint odour, and bitter taste. Fluid extract: dose, $\frac{1}{2}$ to 2 fluid drachms.

Eupatorium Perfoliatum. *Boneset; Thoroughwort. North America. N. O. Compositae.*

Large opposite leaves with corymbs of white flowers; mild diaphoretic tonic, especially in catarrh. Dose, 1 drachm in infusion or fluid extract. *Eupatorin*, or *Eupurpurin*, is the resinoid active principle. Dose, 2 to 4 grains. Aperient and febrifuge. *Aya-pana*, of which the leaves are in French Codex of 1884, is from *Eupatorium triplinerve*. *Eupatorium purpureum* is Queen of the meadow: root used.

Euphorbia Corollata. *Large-flowering Spurge.*

Euphorbia Ipecacuanha. *American Ipecacuanha. U. States. N. O. Euphorbiaceae.*

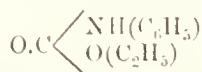
These roots are used as cathartics and emetics, in doses of 5 grains to one scruple.

Euphorbia Pilulifera. *Australia.*

"The herb *Euphorbia pilulifera*, De Candolle, collected when in flower and carefully dried. The involueral glands of the perianth are without appendages. The mature seeds are minutely wrinkled."—B. P. C. Formulary. Small greenish leaves, and hollow brown stalks.

THERAPEUTICS. In Australia it is regarded as a cure for asthma, bronchitis, and coughs with expectoration; an ounce of the herb, in 2 quarts of water boiled down to 1 quart, adding a teaspoonful of alcohol to keep it. Dose, 2 fluid ounces three times a day. Also the tincture: dose, 1 to 2 fluid drachms occasionally; and fluid extract: dose, 10 to 20 minims.

Euphorin. *Phenyl-urethane; Phenyl-ethylic Urethane; Carbamate of Ethyl and Phenyl.*



Produced by action of chloro-carbonate of ethyl on aniline. A white crystalline powder, of faint aromatic taste and odour; slightly soluble in water, readily in alcohol or wine. Antipyretic in fevers, lowering the temperature without collapse; antirheumatic and antiseptic.

Dose, begin with $1\frac{1}{2}$ grains, but going up to 15 grains for an adult.

In habitual hemicrania. Wafers: Euphorin, one drachm; dispense in ten wafers, 3 to 5 daily.

"Inferior to many other remedies of the same nature."—*Brit. Med. Journ.*, October 18th, 1890.

Europhen. *Isobutyl-ortho cresol iodide.*

This antiseptic powder is prepared by Bayer's successors in Elberfeld. It is an amorphous yellowish powder, and contains about 28 per cent. of iodine. Soluble in about 4 parts of olive oil. A powerful germicide and bactericide; used to wounds like iodoform, and in similar quantities. Three per cent. ointment for burns.

In wounds, burns, &c. Ointment: Europhen, 30 grains; olive oil, $2\frac{3}{4}$ fl. drs.; lanolin, enough to make 3 ounces. Externally.

Eurythrol.

A brown, aromatic, syrupy, *spleen* extract; teaspoonful doses in water in anæmia.

Exalgine. *Orthomethylacetanilide; Methylacetanilide.* $C_6H_{11}NO = C_6H_5 \cdot N(CH_3) \cdot CH_3CO.$

One of the three methyl derivatives of Acetanilide. In needles or large white tablets, slightly soluble in cold, more in hot water, and very soluble in water containing a little alcohol. In French Codex Sup.

THERAPEUTICS. It resembles antipyrin in lowering temperature and causing disappearance of pain, quieting especially neuralgic pain. Though its antithermic power may not be as great as that of antipyrin, its antiseptic power and its analgesic energy are more pronounced. Dose, 5 grains, two, three, or four times in twenty-four hours.

Prof. Fraser, of Edinburgh, extols it in relieving pain.—*Brit. Med. Journ.*, February 15th, 1890.

Alarming symptoms have, in exceptional cases, been produced.—*Brit. Med. Journ.*, May 3rd, 1890, and October 11th, 1890.

Fabiana Imbricata. (*See Pichi.*)**Febriline.**

This is a trituration of crystallised quinidine (1·0) with syrup of lemons (100·0).

Fer Cremol.

"Fer Cremol" is described as a compound of iron with the colouring matter of blood, obtained by the action of a dilute neutral iron solution on a solution of blood. The acid set free in the process is neutralised with a dilute solution of an alkali carbonate. Fer cremol is a brown, almost tasteless powder, which dissolves in feebly ammoniacal water with a red colour, without leaving a residue; it contains 3 per cent. of iron. Dose, 3 to 8 grains three times a day, after meals.

Ferratin.

Ferratin is prepared by exposing a mixture of certain proportions of white of egg and an iron salt to the action of slight heat in an alkaline medium. It is a red-brown powder, little soluble in distilled water, but soluble in presence of soda. It contains from 7 to 8 per cent. of iron. It is absorbed in notable quantities from the intestines, and when injected directly into the blood-stream it does not appear to be excreted either by the kidneys or the intestines save in minute quantities. It may be given in doses of 15 to 30 grs. daily, care being taken not to associate it too closely with acid materials.

Ferri Albuminas.

Prepared with white of eggs and diluted solution of chloride of iron. It contains 5 per cent. of ferric oxide, is a cinnamon-brown powder, or in scales, and soluble in water (especially if slightly acidulated with hydrochloric acid). Dose, 20 to 30 grains in pill or solution. *Quinine albuminate* is a similar preparation.

Ferri Fluoras.

A whitish powder, insoluble in water, has been used for enlarged spleen. Dose, $\frac{1}{10}$ to $\frac{1}{2}$ grain.

Ferri Lactas. $\text{Fe}(\text{C}_3\text{H}_5\text{C}_3)_2$.

A greenish, crystalline, soluble powder, taken with ease into the system as a tonic. Also in crystals. Dose, 2 to 10 grains.

Ferri Salicylas.

A red-purple powder, astringent and antiseptic; but little soluble. Dose, 3 to 8 grains; used as an application to wounds.

Ferri Succinas.

Supposed to act on calculus in the biliary duct, and therefore has been employed in jaundice.

Ferripyrin. *Ferropyrin.* $\text{Fe}_2\text{Cl}_6 \cdot 3(\text{C}_{11}\text{H}_{12}\text{N}_2\text{O})$.

An orange-red powder, forming a dark red solution in water.

Hæmostatic, and iron tonic for anæmia, chlorosis, &c. A compound of antipyrin and iron chloride: besides a styptic action, ferripyrin also possesses astringent and analgesic properties, which render it valuable in the treatment of vaginitis and endometritis. In these cases 1 to $1\frac{1}{2}$ per cent. solutions should be used by means of an irrigator.

Ferrostyptin.

A hemostatic made by Marquart. It is a reddish-yellow crystalline powder, having a phenolic odour and saline taste, soluble in water, sparingly in alcohol. The clear water solution is acid and coagulates on heating. Ferrostyptin contains 20 per cent. of iron, with ammonium chloride and, apparently, some acetanilide.

Firwein.

A proprietary balsam of Fir Wine, with iodine, bromides, and phosphorus. Given in bronchitis and incipient phthisis, also as a spray in laryngeal catarrh. Dose, 2 drachms several times a day ; as a spray, 1 part vaseline to 3 of Firwein, and use warm.

Fluorol.

"Fluorol" is Sodium Fluoride. This salt is recommended as a substitute for mercuric chloride, or potassium permanganate, as an antifermentative. An advantage claimed for fluorol is that it does not coagulate albumen ; thus the bacteria are not protected from the action of the remedy by a coat of coagulated albumen. Injections of a 1 to 200 solution of fluorol are not caustic.

Formanilide.

Prismatic crystals, soluble in water and alcohol. Analgesic, anæsthetic, antipyretic, and hæmstatic. Doses, 4 to 8 grains.

Formol. *Formalin; Formaldehyde.*

An aqueous solution (40 per cent.) of formaldehyde gas (HCOH), a colourless liquid with pungent odour. It is a strong antiseptic without toxic properties, with weak microbicidal powers, but suitable as a preservative for wine, beer, and food. It mixes in all proportions with water. A 10 per cent. solution forms a good spray for a sick room, and a 20 per cent. dusting powder has been used with good results. It arrests formation of pus in purulent ophthalmia, vaginal catarrh, and blennorrhœa. Merck has combined this substance with aloin ; considered as superior to latter as a less bitter and slower soluble cathartic. *Formopyrine* is a combination of antipyrin and formaldehyde.

Frasera Walteri. *F. Carolinensis. American Colombo. U. States. N. O. Gentianæ.*

Root is in longitudinal slices, yellowish-brown, with bitter-sweet taste ; contains *gentiopierin*. Tonic in doses of $\frac{1}{4}$ and $\frac{1}{2}$ drachm.

Fuchsin. $C_{20}H_{19}N_3HCl + C_{19}H_{17}N_3HCl$.

This is a combination of hydrochlorides of Rosaniline and Pararosaniline; it can be prepared free from arsenic. It is in bright iridescent crystals, giving a deep red solution in water, used in the arts as a dye, and in medical science for staining purposes in histological and bacteriological work. Pills made with it are employed in albuminuria. Dose, 1 grain, in pill; three daily; externally in a 1 per cent. alcoholic solution in five cases of traumatic erysipelas with successful results.

Fucus Vesiculosus. *Bladder Wrack. N. O. Algæ.*

This brown alga, containing iodine, mannite, and mucilage, is supposed to act as a resolvent to diminish morbid obesity. Dose: solid extract, 2 to 5 grains; fluid extract, 1 to 2 teaspoonfuls in water; after meals. As "Varech Vésiculeux" in French Codex, 1884.

Furfurine. $C_{15}H_{12}N_2O_3 = (C_5H_4O)_3N_2$.

An organic base, discovered by Fownes, formed from Furfuramide, which is from Furfurol, $C_4H_3O.CO.H$, a product of the action of sulphuric acid on wheat bran. Its salts are crystallisable and bitter.

Galium Aparine. *Cleavers or Goose-grass. Indigenous. N. O. Rubiaceæ.*

This weak climbing plant, with white flowers, has been brought into notice lately as a remedy for ulcers. In America it is used as a diuretic in inflammation of bladder and kidneys. Dose of fluid extract, 1 to 2 drachms; solid extract, 5 to 15 grains.

Gallacetophenone. $CH_3.COC_6H_2(OH)_3$.

A derivative of Pyrogallol, discovered by Nencki; it is a yellow powder, soluble in alcohol, ether, and hot water; acetate of sodium helps its solution. In psoriasis its effects show themselves in twelve hours, and it does not stain linen. In a 10 per cent. ointment, or a solution in water 4 per cent., with 30 per cent. of acetate of sodium.

Gallanol. *Gallol; Gallanilide.*

"Gallanol" is the name given to a white crystalline compound obtained by heating gallic acid with aniline and treating the product with water acidified with hydrochloric acid. It has a slightly bitter taste, melts without decomposition at $205^\circ C.$ ($401^\circ F.$), and is only slightly soluble in cold water. For external application, as a dusting powder or in ointment, for psoriasis and eczema.

Gallicin.

The methylic ether of gallic acid has been found useful in conjunctivitis, particularly in cases of a catarrhal nature with chronic swelling of the eyelids. It is best applied by insufflations into the eye. Where the application causes pain the eye should first be treated with a little 20 per cent. solution of cocaine. It may also be used in aqueous solution. It dissolves readily in warm water, giving a colourless solution; it is also soluble in warm alcohol and in ether. The melting-point should be from 200° to 202° C. It is a non-toxic bactericide.

Gallobromol. *Dibromogallic Acid.*

Fine needle crystals, soluble in hot water, alcohol, and ether. Its therapeutic uses are those of alkaline bromides; it can be given in doses of $\frac{1}{2}$ to 1 drachm a day. Germicide, antiseptic, astringent (2 to 4 per cent. solution, as an injection in gonorrhœa). As a sedative it is said not to have the depressing effect of potassium bromide.

Garcinia Indica. *G. purpurea. India. N. O. Guttiferae.*

The fleshy fruit is called Kokum, and the seeds yield a white dry greasy mass of concrete oil of Mangosteen or "Kokum Butter."

Gelanthum.

A new ointment base: prepared with tragacanth and gelatine, adding 5 per cent. of glycerine and 2 per cent. of thymol. The advantages of Gelanthum, or "Gelanth," consists in the cooling effect which it produces on the skin by drying rapidly and smoothly, and its compatibility with all kinds of medicaments.

Gelsemine. $C_{54}H_{69}N_4O_{12}$ ($C_{12}H_{14}NO_2$ —*Gerrard*).

CHARACTERISTICS. Alkaloid of the root bark of Gelseminum, in combination with Gelsemic acid. White crystalline bitter powder, scarcely soluble in water, though its salts are so. A second alkaloid, *Gelseminine*, is amorphous.

THERAPEUTICS. Febrifuge and nervine, acting on the dental nerves. Dose, $\frac{1}{70}$ to $\frac{1}{15}$ grain occasionally, not exceeding $\frac{1}{5}$ grain in the day. The hydrochlorate, sulphate, and nitrate are similarly used. The sulphate is recommended in spermatic and neuralgic affections; also in controlling cardiac palpitations: dose, $\frac{1}{60}$ to $\frac{1}{20}$ grain. [The brown powdered eclectic resinoid is also called *Gelsemin*: dose, $\frac{1}{2}$ to 2 grains.]

Gelsemium (Gelseminum) Sempervirens. *Caroline Jessamine; Yellow or Wild Jasmine. N. America. N. O. Loganiaceæ.*

Woody pale-brown rhizome and rootlets; odourless, with faint bitter taste: has a beneficial effect on the dental nerves, even with carious teeth; also in neuralgia and some nervous coughs. Dose of tincture, 1 to 8 proof spirit, 15 to 20 drops every hour till 1 drachm has been reached, or the pain ceases. Dose, fluid extract, 5 to 10 minims. (*See St. Bartholomew's Hospital Reports*, by Mr. Willett, April 5th, 1883.)

Geoffroya Inermis. *Andira inermis. Cabbage-bark tree, West Indies. N. O. Leguminosæ.*

The bark is a bitter febrifuge, and in large doses is a strong anthelmintic for lumbricoid worms. Dose, $\frac{1}{2}$ drachm of powdered bark; 2 fluid drachms of tincture or decoction; 1 fluid drachm of fluid extract. *G. Surinamensis (Andira retusa)* is used in Holland, in the form of the dry extract of the bark, as a vermifuge. [Its active principle is the alkaloid *Geoffroyine*.]

Geranin. *From Geranium maculatum. N. O. Geraniaceæ.*

A resinoid prepared from the root of this plant. Astringent in diarrhœa, especially of children. Dose, 1 to 5 grains.

Geranium Maculatum. *Cranesbill. N. O. Geraniaceæ.*

The rhizome, dark, tuberculated, with brittle rootlets; contains 10 to 25 per cent. of tannic acid. Astringent tonic, $\frac{1}{4}$ to 1 drachm. Fluid extract, U.S. Pharm.; dose, 15 to 60 drops.

Geum Rivale. *Water-avens. Europe. N. O. Rosaceæ.*

Thick wrinkled reddish-brown rhizome, with astringent taste from tannic acid. Tonic in $\frac{1}{4}$ -drachm doses, generally in decoction. *Geum urbanum*, *Avens*, has similar properties.

Gingerol. *Gingerine. From Zingiber officinale. Asia. N. O. Scitamineæ.*

A viscid, inodorous liquid, to which the hot taste is due; it is contained in the root, with volatile oil and resin. Jamaica ginger has about 5 per cent. of oleo-resin. In the same Natural Order, *Zedoary (Curcuma zedoaria, India)* contains a resin giving its pungent taste; *Galangal (Alpinia officinarum, China)* contains a similar body, Galangol, soft, very pungent and inodorous; *Turmeric (Curcuma longa, Asia)*, a similar aromatic viscid oil, Turnmerol (Maisch).

Glonoïn. (*See Nitro-glycerine.*)

Heart Tonic Triturate (Da Costa). Nitro-glycerine $\frac{1}{100}$ grain, Tr. Belladonnæ $\frac{1}{4}$ min., Tr. Digitalis 2 min., Tr. Strophanthus (B. P.) 2 min. Made into pellets; one occasionally.

Glusidum. *Saccharin. Benzoyl-sulphonic-imide.* $C_6H_4 \left\langle \begin{smallmatrix} CO \\ SO_2 \end{smallmatrix} \right\rangle NH$.

CHARACTERISTICS. A coal-tar derivative, discovered by Dr. Fahlberg, of New York. It is "a sweet imide derivable from the toluene of coal tar"—1890 Add. to B. P.,—and not a carbo-hydrate, like sugar. A white powder, apparently amorphous, but crystalline to the microscope, and intensely sweet. It is antiseptic, as salicylic acid and thymol, from its connection with the phenol compounds. Slightly soluble in cold, more readily in warm water; soluble in alcohol, ether, and alkaline solutions: it forms *soluble* compounds with alkalis.

THERAPEUTICS. Saccharin gives a sweet taste without the use of sugar, and therefore it is recommended as a sweetening material for diabetic patients.

"Saccharin passes unaltered through the organism, passing off unchanged exclusively through the urine, the composition of which it does not otherwise affect."—Dr. Stutzer, of Bonn ('Pharm. Cent.,' March 4th, 1886).

It can be administered in compressed tablets, containing $\frac{1}{2}$ grain to 1 grain each, with a little soda or potash to make them soluble in water; or in a liquid, as suggested in the following form:

FORMULA. Elixir Saccharini, according to W. Martindale's formula.

Saccharin	...	...	...	24 grains.
Bicarbonate of sodium	...	...	...	12 grains.
Rectified spirit	...	...	...	1 fluid drachm.
Distilled water	...	...	...	7 fluid drachms.

Rub the saccharin and bicarbonate of sodium in a mortar, with the water gradually added; add the spirit and filter: 20 minims contain 1 grain of saccharin.

"The latter solution, when warmed and made neutral and evaporated to dryness, yields soluble gluside, very soluble in water."—1890 Add. to B. P.

Crystallöse, or ortho-toluol-sulphonate of sodium, a crystalline sodium salt of saccharin, not quite as strong as the latter, in doses of $\frac{1}{2}$ to 1 grain.

Glucin, or sodium amidotriacinsulphonate, a sweetener, 100 times as sweet as sugar.

Glutine-peptone-sublimate Hydrochloride.

A double salt of the hydrochlorides of glutine-peptone and mercury. *Glutine-peptone-sublimate* is a white powder consisting of small scales; it contains 25 per cent. of mercuric chloride; is very hygroscopic and soluble in water. In syphilis, a Pravaz syringe-ful, containing 1 cc. (nearly $\frac{1}{6}$ grain), is the dose for one injection. The injections are made either into the connective tissue beneath the skin between the shoulders, or lower.

Glutol. Formalin-Gelatin.

A new form of antiseptic treatment of wounds. If gelatine dissolved in water is exposed to formalin vapours, a chemical compound possessing novel properties is formed. The gelatine loses its gelatinous character and becomes a resistant hard transparent body. In glutol, we possess a remedy which in contact with clean wounds forms a firm scab, without other disinfectant measures, in the course of a few hours, so that primary stitched wounds are in a short time covered with a protective layer which prevents infection.

Glycerite Kephaline.

An American proprietary, made by M. J. Briettenbach; it is a liquid glycerine extract of ox's brain, and is given as a tonic brain stimulant.

Glycerophosphates.

The glycerophosphates of calcium, iron, sodium, magnesium, and potassium are used. For subcutaneous injection, the salt of lime, sodium, or magnesium: the lime salt in a solution of 5 in 100; the sodium salt in a solution of 20 in 100. One may inject daily 16 mm. to 2½ fl. dr. of each of these solutions. The solution must be prepared so as to be aseptic, and only in small quantities at a time. By the mouth, the glycerophosphates are given in the form of cachets, pills, syrups, &c. The doses are, for the salts of calcium, sodium, and magnesium, 5 to 15 grs. a day, preferably with food; for the glycerophosphate of iron, 2 to 5 grs. Glycerophosphates of quinine, and also of iron and quinine, are also employed as nervine tonics. *Neurosin* is a French preparation of calcium glycerinophosphate. The glycerophosphates of calcium, sodium, and potassium may be administered *per os* or by subcutaneous injection. As they improve the general nutrition of the nervous system, their employment is indicated in nervous depression, sciatica, and facial tic-douloureux.

Glycozone.

A liquid made by Charles Marchand, of 28, Prince Street, New York, consisting of Glycerine and Peroxide of Hydrogen.

A stable compound of one volume of anhydrous glycerine exposed to the action of 15 volumes of ozone at ordinary atmospheric pressure. In gastritis and dyspepsia, in tablespoonful doses in water, before or after meals.

Glycophenique is a mixture of Glycerine with Phenol, made by J. Milbau's Sons, U.S.A.

Gold Monobromide.

Yellowish-grey, very friable mass; insoluble in water. Anti-epileptic, antisyphilitic. Dose, $\frac{1}{8}$ to $\frac{1}{5}$ gr. Anodyne (migraine, &c.), $\frac{1}{20}$ gr. twice daily before meals.

Gold Tribromide.

Soluble in water. Therapeutics and dose same as monobromide.

Gold is eliminated by the liver, intestines, and kidneys. The chloride of gold and sodium ($\text{AuCl}_3 \cdot \text{NaCl}_2 \cdot \text{H}_2\text{O}$) is often employed in a dose from $\frac{1}{30}$ to $\frac{1}{12}$ of a grain, usually in a pill, although it is soluble in 2 parts of water. Nervous dyspepsia is relieved by giving $\frac{1}{20}$ grain three times a day. Epigastric pain, red, glazed tongue, and diarrhœa after meals are the indications for its use. Catarrh of duodenum and bile-ducts, and the resulting jaundice, are often relieved by the same dose. Amenorrhœa from torpor of the ovaries, and chronic metritis with scanty menses, are benefited by gold when all the usual drugs have failed.

Gossypium Herbaceum. *Cotton Plant. N. America. N. O. Malvaceæ.*

Root bark in thin tough quills. A powerful abortifacient; used as such by negroes in Southern States. An emmenagogue in amenorrhœa. Dose, a wineglassful of decoction (4 ounces in a quart of water boiled to a pint) every 30 minutes.—H. C. Wood, 'Therapeutics,' 1877, page 527. Dose of fluid extract, $\frac{1}{2}$ to 1 fluid drachm. Tincture, 1 in 5 proof spirit; dose, 1 fluid drachm.

Gossypin—eclectic resinoid. Dose, 2 to 5 grains. The seeds produce 15 to 20 per cent. of a bland oil.

Gonania Dominguensis. *Chew-stick. W. Indies. N. O. Rhamnææ.*

Pieces of porous stem, with thin bark and bitter taste, are used for their tonic properties; chewed as a digestive, and employed in the United States as a tooth-brush.

Grindelia Robusta. *Wild Sunflower. California. N. O. Compositae.*

Long thin stalks, bearing pale green lanceolate leaves, and small persistent scaly capitula, with yellow florets. Leaves and flowering tops with aromatic odour and pungent balsamic taste. It contains, besides a heavy volatile oil, a green oleo-resin and a solid resin; the two latter are expectorants.

THERAPEUTICS. In asthma, whooping-cough, and obstructions of the bronchial tubes. Dose of fluid extract, $\frac{1}{2}$ to 1 drachm every half-hour; tincture, 30 drops every hour. In U.S.A. Pharm., 1880.

Grindelia Squarrosa. *Agueweed, California.*

Herb. Chronic malarial ague and chills, with a special action on the spleen. Dose of fluid extract, $\frac{1}{4}$ to 1 drachm four times a day.

Guaco. *Mikania Guaco (?) South America. N. O. Compositae.*

Used for snake-bites. An infusion of fresh leaves, and poultice of bruised leaves; also in fever and rheumatic gout. Dose, 1 fluid drachm of fluid extract (1 ounce represents 1 ounce herb). Guibourt is right in considering Guaco to be the native name of several strongly aromatic species of Aristolochia.

Guaiacol. *Methyl-pyrocatechin. C₆H₄.OH.OCH₃. Originally obtained from Guaiacum resin.*

A component part, about 60 per cent. or more, of wood creasote, of which it has the odour and taste; a colourless liquor, s. g. 1.117. Soluble in alcohol and ether.

Guaiacol is the methyl-ether of pyrocatechin—OH.C₆H₄.OCH₃. Creosol is the methyl-ether of homo-pyrocatechin—OH.C₆H₃.(CH₃).O.C.H₃.

Creosote is mainly composed of guaiacol and creosol: Guaiacol is insoluble in benzine, but creosol is soluble in this menstruum.

Creosol must not be confounded with Cresol, which is a generic name for three isomeric bodies contained in coal tar, and also in certain wood-tars, and which have the composition OH.C₆H₄.CH₃. Beechwood tar contains both cresol and creosol.

THERAPEUTICS. Given in phthisis. Dose, $\frac{1}{2}$ to 2 minims several times a day, after meals, preferably in a mixture of alcohol, wine, and water. The bacilli decrease and lung symptoms improve.

Guaiacol-carboxylic Acid has antipyretic and antiseptic properties.

GUAIACOL—*continued*.

Alpha-creosote is a mixture of the normal constituents of creosote containing one fourth of crystallised guaiacol.

Alpha-guaiacol is crystallised synthetic guaiacol.

Guaiacetin is a guaiacol compound for tuberculosis ; dose, 7 grains several times daily.

Guaiacol Biniodide.

Reddish-brown powder, soluble in alcohol and fixed oils, insoluble in water : easily decomposed. Recommended as an anti-tubercular.

Guaiacol Carbonate. *Duotal*.

It is a white crystalline odourless and tasteless powder, insoluble in water. It contains 91.5 of pure guaiacol. Used with success in tuberculosis (phthisis or consumption), it does not irritate the mucous membrane, or disturb digestion. Dose, 3 to 8 grains night and morning, increasing to 70 grains daily.

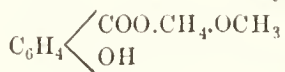
Guaiacol-iodoform.

Iodoform (1 part) dissolved in Guaiacol (5 parts). A powerful bactericide, especially for the tuberculosis bacillus, as in lupus. Injected subcutaneously in doses of $\frac{1}{4}$ drachm.

Guaiacol Phosphate. $\text{PO}(\text{C}_6\text{H}_4\text{OCH}_3\text{O})_3$.

Made by dissolving guaiacol in soda solution, and acting on this with phosphorous oxychloride, the temperature being kept low. Occurs in colourless crystals, melting at 98°C . Soluble in chloroform : anti-tubercular. *Guaiacol Succinate* is also antitubercular.

Guaiacol Salicylate. *Guaiacol-salol* ; *Salicyl-guaiacol*.



An intestinal disinfectant. White, tasteless, odourless crystalline powder, insoluble in water, soluble in alcohol. Acts similarly to Benzoyl Guaiacol. Antitubercular and intestinal antiseptic.

Guarana. Paullinia Sorbilis. *South America. N. O. Sapindaceæ.*

The brown seeds are roasted, reduced to paste, which is dried in small, hard, pinkish cylinders ; these are powdered.

THERAPEUTICS. Nervous headaches : alternate with a few drops

GUARANA. PAULLINIA SORBILIS—*continued*.

of acetic ether in a spoonful of pounded ice. Dose of powder, 10 to 50 grains; of fluid extract, 20 to 60 minims. Tincture (1 in 5 proof spirit), dose 30 minims. A general remedy among the South American Indians. In French Codex, 1884.

Guaranine. $C_8H_{10}N_4O_2.H_3O$. Active principle of Guarana.

Crystalline; is identical with caffeine. Dose, 1 to 5 grains.

Gurjun Balsam. *Wood Oil. Gurjun Oil. Dipterocarpus lavis. N. O. Dipteraceæ.*

Dark, clear, rather thin, reddish-brown, fluorescent oil. Has been used externally in skin diseases: is an anti-blennorrhagic, in doses of 15 to 40 drops.

"An admirable expectorant, in 1-drachm doses, three times a day, in chronic bronchitis."—Dr. W. Murrell, *Lancet*, 1890, p. 962.

The wood oil used in China and the East for painting, &c., is from the Tung tree, *Aleurites cordata*, *N. O. Euphorbiaceæ*.

Gymnema Sylvestre. *East Indies. N. O. Asclepiadæ. Syn. Merasingi (Hind., Beng.); Kavalf, Wakandi (Bomb.); Shirukurunja (Tam.)*

A shrubby, climbing plant, with small yellow flowers. Part used, the leaves. Action, emetic and expectorant. Uses, local and internal remedy in snake-bites. The leaves have also been said to destroy the taste of sweet substances. Its active principle is gymnemic acid, which see, page 15.

Gynocardia Odorata. (*See Chaulmoogra Oil.*)

Hæmalbumin. *Hæmalin-albumin.*

Dark brown powder, odourless, and having but a slight taste. Hæmalbumin is the name given to a preparation said to contain all the salts and albuminoids existing in the blood—such as hæmoglobin, hæmatin, serum-albumin, and paraglobulin (except fibrin). It is a stable powder, readily soluble in hot water and in alcoholic fluids. Does not cause gastric disturbance, easily assimilated, and does not cause constipation. Dose, a teaspoonful three times a day after meals, in water or milk.

Hæmatogen.

Soft yellow powder, containing 7 per cent. of iron, soluble in alkaline fluids. Ferruginous tonic in anæmia, &c.

Hæmoglobin.

The red colouring principle of the blood. Red-brown colloid or crystalline powder. Tonic hæmatinic (anæmia, chlorosis, &c.). Dose, $1\frac{1}{2}$ to 3 drachms daily in wine, or in tablets.

Hæmol and Hæmogallol.

Prof. Kobert has succeeded, by the action of reducing agents—such as zinc-dust and pyrogallol—on the colouring matter of the blood, in producing these two compounds of iron. The product obtained by means of zinc-dust has been named Hæmol; that produced by the action of pyrogallol is termed Hæmogallol. Of the latter, a quantity corresponding to 21·6 per cent. was slowly eliminated with the urine in the course of several days. Hæmol is a blackish-brown powder; Hæmogallol, a reddish-brown powder. The dose of either is $1\frac{1}{2}$ to $7\frac{1}{2}$ grains three times daily. Healthy persons bear 15 to 30 grain doses of Hæmogallol without inconvenience. It is successful in anæmic neurasthenia, or anæmia with heart disease, in doses of $\frac{3}{4}$ and $1\frac{1}{2}$ grains, fifteen minutes before meals.

Bromhæmol is bromated Hæmol: anti-epileptic.

Cuprohæmol.—A chocolate-brown powder. This organic, non-caustic compound of copper has been used in dysentery, tuberculosis, and syphilis. Dose, 1 to 3 grains in pills or cachets.

Ferrohæmol is ferrated Hæmol: hæmatinic. Dose, 8 grains.

Iodo hæmol is iodised Hæmol.

Mercurio-iodo hæmol is mercurio-iodised Hæmol: antisyphilitic. In doses of 2 to 5 grains.

Zinc-hæmol is Hæmol containing some zinc. This amorphous brown powder is a mild antiseptic demulcent tonic in gastric and intestinal irritation, and also in chlorosis. Dose, 5 grains with food.

Hamamelis Virginica. *Witch-hazel. North America. N. O. Hamamelidæ.*

CHARACTERISTICS. The dried bark and dried leaves are in the 1890 Add. to B. P.; the fresh aromatic green twigs are also used: the leaves are in U.S.A. Pharm. The dried bark is thin, brown, with adherent outer bark, odourless and slightly astringent. The dried leaves are oval, smooth, with prominent under veins, tea-like odour,

HAMAMELIS VIRGINICA—*continued*.

and astringent bitter taste. Its styptic properties come from a volatile oleo-resin combined with gallic acid.

THERAPEUTICS. Strong stimulant astringent in external and internal hæmorrhage; also in diarrhœa and mucous discharges, and as a gargle for sore mouth. Dose, tincture—1890 Add. to B. P.—(1 to 10 proof spirit), 5 to 60 minims several times a day; distilled extract, 30 minims; fluid extract, 5 drops to $\frac{1}{2}$ fluid drachm: the latter in even larger doses several times a day, efficient in hæmoptysis; solid extract, in suppositories of $\frac{1}{4}$ grain, in hæmorrhoids.

The liquid extract is in the 1890 Add. to B. P. Dose, 2 to 5 minims; used in Ung. Hamamelidis, 1 fluid part in 10 parts.

Hamamelin. Dark brown powdered extractive of witch-hazel. Dose, 1 to 4 grains.

Haschisch. (*See page 56.*)

Hedera Helix. *Ivy.* *N. O. Araliaceæ.*

Hederine is a bitter alkaloid, allied to quinine in febrifuge quality. *Ivy gum* is a resinous exudation from bark of old trees, formerly used as a stimulant emmenagogue.

Helcosol. *Bismuth Pyrogallate.*

Amorphous, yellowish-green powder; insoluble in water and alcohol, slightly in 0·3 per cent. HCl. Non-toxic (?) in infectious intestinal diseases. Used instead of pyrogallol internally.

Helenin. $C_{15}H_{20}O_2$. *Inula Helenium.* *Indigenous.* *N. O. Compositæ.*

A stearoptene, in white crystals, soluble in alcohol. It is neutral to test-paper, and is soluble in alkalies, with formation of an oxy-acid (Bredt and Posth). It has antiseptic properties, arresting putrefaction.

THERAPEUTICS. Used externally for carbuncle, and internally in tuberculosis, diarrhœa, bronchitis, chorea, &c.

Dose, 1 to 4 grains several times a day.

Heliotropin. *Piperonal.* $C_8H_6O_3$.

White crystals; it is an artificially built-up odorous substance (starting from the piperin of pepper), with a powerful heliotrope odour.

Helleborein. $C_{26}H_{44}O_{13}$. The crystallisable Glucoside from root of *Helleborus niger*, *H. viridis*, and *H. foetidus*.

Soluble in water. Has the effects on the heart of digitaline as a cardiac stimulant, but is preferable, owing to its greater solubility, and consequent rapid absorption and elimination. Dose, $\frac{1}{50}$ grain.

Helleborin. $C_{36}H_{42}O_6$. A second glucoside, little soluble; gives the narcotic properties; paralyses the nerve and brain.

Helonias Dioica. (See page 23.)

Hemo-cardiacine.

An American proprietary medicine, consisting of nitrogenised iron, detannated cherry bark, and digitalis. A cardiac tonic, given in teaspoonful doses before meals.

Henna. *Lawsonia inermis*. Arabia, &c. N. O. *Salicariæ*.

Dried leaves. It is used internally for jaundice. An aqueous decoction dyes the skin reddish brown by tanning it.

Heuchera Americana. U. States. N. O. *Saxifragaceæ*.

Long, purplish-brown root, with very astringent taste; it contains about 14 per cent. of tannic acid. Astringent, in doses of $\frac{1}{4}$ to $\frac{1}{2}$ drachm.

Hoang-Nan. *Strychnos Gauthieriana*. N. O. *Loganiaceæ*.

The bark of a creeper from Tonquin. Has a reputation in China in leprosy, bites of snakes, &c. Its action is analogous to strychnia.

Holarrhena. *H. antidysenterica* (*Holarrhina africana*—DC). *Indurjao*. Tropical Africa. N. O. *Apocynaceæ* (*Apocynæ*).

The bark is used in India in dysentery. The numerous seeds, brown, fusiform, half an inch long, have been mistaken for *Strophanthus*, but they are not bitter.

It contains $\frac{1}{16}$ per cent. of an alkaloid, Conessine, $C_{10}H_{20}N$, identical with that obtained from *Wrightia*. Merck has obtained it from the seeds. Substitution: the nearly inert bark of *Wrightia tinctoria*.

The seeds, called in India, *Indurjao*, bark, and alkaloid are used in dysentery and diarrhœa. Dose of tincture (1 in 8), $\frac{1}{2}$ to 1 drachm.

Homatropine Hydrobromate. *Hydrobromate of Homatropine*. $C_{16}H_{21}NO_2.HBr$.

Homatropine is an alkaloid obtained by Prof. Ladenburg by action of hydrochlorates on tropine amygdalate (phenyl) or benzo-glycolic acid. White crystalline flakes, soluble in 6 parts of cold water; weaker than atropine.

HOMATROPINE HYDROBROMATE—*continued*.

THERAPEUTICS. The hydrochlorate is used in eye practice. In solution of 2 to 6 grains to the ounce it widens the pupil of the eye and paralyses the ciliary muscle, the pupil of the eye losing the power of contraction and dilation; this disappears in a few hours, constitutionally disturbing less than atropine or duboisine. Dose, $\frac{1}{80}$ to $\frac{1}{20}$ grain. Homatropine sulphate, hydrochlorate, and salicylate are similarly employed.

Hydracetin. (*See Pyrodin.*)**Hydrargyrum Asparagatæ.** $\text{HgC}_4\text{H}_5\text{NO}_4$. *Mercuric Amido-succinate.*

A powerful antisyphilitic. In 1 per cent. solution, clear, without colour or odour. To be employed subcutaneously once a day; dose of this solution, 8 min. daily. Recommended by Prof. Neumann, of Vienna.

Hydrargyrum and Potass. Hyposulphite. $2\text{Hg}(\text{S}_2\text{O}_3)_2 + 5\text{K}_2\text{S}_2\text{O}_3$.

Colourless crystals, which dissolve readily in water, and neither coagulate nor precipitate albumen. Proportion of mercury, 31.4 per cent. As an antisyphilitic.

Hydrargyrum Benzoate.

A white powder, without taste or odour; soluble in alkaline iodides and chlorides, insoluble in water. Antisyphilitic. In doses of $\frac{1}{10}$ to $\frac{1}{5}$ grain per day.

Hydrargyrum Cyanidum. *Mercury Oxycyanide; Mercuric Cyanide.*

White crystals, soluble in eight parts of water.

An antiseptic lotion, externally for sores in syphilis, or internally. Dose, $\frac{1}{10}$ grain in pill. Poisonous.

Hydrargyrum Gallatæ. $[\text{C}_6\text{H}_2(\text{OH})_3\text{CO}_2]_2\text{Hg}$. (Contains about 40 per cent. of Hg.)

A greyish-green, amorphous powder; is insoluble in the ordinary media, but it dissolves partly in alkalies. Brousse and Gay have used this preparation in the dermatological clinic at Montpellier for the treatment of cases of primary and secondary syphilitic skin eruptions, and they have had satisfactory results. It is administered internally; the absorption of the mercury is rapid, and its therapeutic influence quickly becomes manifest. Formula:—℞ Hydrargyri Gallatis, gr. j; Ext. Gentianæ, gr. iss; Pulv. Cinchonæ, q. s. Fiat mass. in pilulas xxx dividenda. 2 to 4 pills daily.

Hydrargyrum-naphthol Acetas.

An insoluble white powder, externally for syphilitic sores, or internally. Dose, $\frac{1}{2}$ to 1 grain.

Hydrargyrum Salicylate.

A white amorphous powder, without odour or taste, insoluble in water or alcohol. A powerful antisyphilitic. Doses: internally, 1 grain daily in pills; by hypodermic injections, $1\frac{1}{2}$ grains every third day.

Hydrastin. *Eclectic resinoid: the active principle of Hydrastis canadensis, including the alkaloids Hydrastine and Berberine.*

Tonic, to intestines and liver especially. Dose, 1 to 3 grains in pill. For other Salts of Mercury see page 126.

Hydrastine. $C_{22}H_{23}NO_6$. Also from *Hydrastis canadensis*.

Crystalline alkaloid. White glossy prisms, scarcely soluble in water, but easily in alcohol, ether, and chloroform.

THERAPEUTICS. An anti-intermittent; has been employed internally in typhus fever, as it produces a tonic effect to stomach or intestines, in doses of 1 to 4 grains. Also externally as a tonic astringent for skin diseases, piles, &c., in solution 1 in 50, or ointment 1 in 8.

Hydrastine Hydrochlorate.

Crystalline and soluble in water. Used in fevers; dose, $\frac{1}{2}$ to 5 grains. *Hydrastinine* is produced by the oxidation of the alkaloid Hydrastine, and forms salts; its hydrochlorate (*Hydrastininae Hydrochlor.*) is anti-hæmorrhagic. Dose, $\frac{1}{2}$ to 1 grain.

Hydrastis Canadensis. *Golden Seal. N. America. N. O. Ranunculaceæ.*

Long wrinkled rhizome, with bright yellow waxy fracture and bitter taste, in 1890 Add. to B. P. A tonic purifier of the blood in affections of liver and stomach, and headaches arising therefrom. Dose of tincture, in 1890 Add. to B. P. (1 to 10 proof spirit), 20 to 60 minims; fluid extract, 5 minims to fluid drachm. "An astringent vesico-urethral injection, checking mucous discharge."—E. H. Fenwick, *Lancet*, September 24th, 1887. The liquid extract: dose, 5 to 30 minims.

Hydride of Amyl. *Pentane.* C_5H_{12} .

An anæsthetic, colourless, volatile liquid, with fruity odour; very light, s. g. 0.626 at 62.6° F.

Hydrocotyle Asiatica. *Pennywort. Asia and America. N. O. Umbelliferae.*

The herb is a purifying alterative and tonic, used in the East for leprosy, syphilis, &c. It contains *Tellarine*, a volatile oil. In French Codex, 1884. In powder, in 10-grain doses, several times a day, and externally in ointments.

Hydonaphthol.

This whitish crystalline powder is a non-toxic antiseptic for dusting wounds; lint and gauze containing it are also used. An impure form of β -naphthol.

Hydroquinone. *Quinol. $C_6H_6O_2$. Para-di-oxybenzene.*

This is produced from kinic acid or coal tar. It is in colourless prismatic crystals, which are neutral and tasteless, and soluble in water (1 in 20) and alcohol. A non-irritant antiseptic, especially in ophthalmic cases. In photography, for rapidity and delicacy it has been substituted for tannic acid.

Eikonogen is a non-poisonous, clear, photographic developer.

Hydroxylamine Hydrochlorate. $NH_2O.HCl$.

Hydroxylamine is produced by nitric acid acting on nascent hydrogen. The hydrochlorate is in white crystals, soluble in water, discovered by Lossing; has a strong reducing power; in photography is effective to develop the image on the sensitive silver film. Its strongly reducing action may render it useful, like pyrogallie acid, in some skin affections (1 in 1000 of alcohol and glycerine), but it is irritating and likely to produce toxic inflammation.

Hyoscine (*now called Scopolamine*) **Hydrobromate, Hydrochlorate, and Hydriodate.**

Besides Hyoscyamine, a second alkaloid has been found in Henbane by Ladenburg, of Kiel, viz. Hyoscine. The difference between Hyoscyamine and Hyoscine is shown especially in their different chemical behaviour with gold chloride: both have the formula $C_{17}H_{23}NO_3$. The sulphate of Hyoscine does not crystallise, but is a buff powder.

THERAPEUTICS. Its crystallisable salts, especially the hydrobromate, are administered to enlarge the pupil (in eye practice), like Atropine; but their action is more constant, and at the same time calming and hypnotic. Dose for the eyes, 1 or 2 drops of a 1 per

HYOSCINE—*continued*.

cent. solution. In mania they have proved very soothing internally ; dose, $\frac{1}{100}$ grain (.001 gramme) : subcutaneously injected, dose, $\frac{1}{200}$ grain (.0005 gramme), “calms excitement of the insane.”—*Lancet*, 1889, p. 736.

Under the misnomer of “amorphous sulphate of hyosecyamine” it has been used with success as a nervine sedative in the lunatic asylums of New York, in doses of $\frac{1}{200}$ to $\frac{1}{100}$ grain.

Hyosecyamine. $C_{17}H_{23}NO_3$. From *Hyosecyamus niger*. N. O. Solanaceæ.

Alkaloid in snow-white cubes, which are masses of microscopic needle crystals. Scarcely soluble in cold, more so in hot, and readily in acidulated water.

THERAPEUTICS. Used internally as an hypnotic, in delirium tremens, &c., and also for coughs. Dose, $\frac{1}{100}$ to $\frac{1}{40}$ of a grain several times a day ; also as a mydriatic (to dilate the eye’s pupil), 1 part to 1000 of water ; it acts quicker than atropine. The sulphate is in minute crystals ; also hydrobromate. Dose, $\frac{1}{100}$ to $\frac{1}{40}$ grain. In French Codex, 1884. Of the mydriatic alkaloids, Hyosecyamine is identical with Daturine and Duboisine, and is isomeric with Atropine.

From the investigations of Dr. W. Will, it would seem to be that Hyosecyamine alone pre-exists in belladonna, and that Atropine is the result of chemical action ; also that the alkaloid obtained from the seed of *Hyosecyamus* is Hyosecyamine, which is easily converted into Atropine.

Hypnal. $C_{13}CH_3N_2H_{15}O_3$. *Trichloraldehydphenyldimethylpyrazolon*.

Monochloral-antipyrin is equal molecules of antipyrin and chloral ; odourless and tasteless crystals, dissolving in six times its weight of warm water. It induces sleep and soothes pain. Does not irritate the stomach like chloral hydrate and sometimes antipyrin. Dose, 15 to 30 grains.—*Pharm. Journ.*, February 1st, 1890, and May 3rd, 1890.

Chloral hydrate is incompatible with Antipyrin, but from them a compound is formed by heating them together, different from either.

Hypnoaceline. *A derivative of Acetylparamido-phenol*.

White crystals, insoluble in water, but soluble in alcohol.

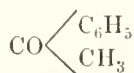
Hypnotic and antithermic. In cachets of 7 or 8 grains, 2 or 3 in the day.

Hypnoacetin. *Acetophenonacetyl-para-amidophenol.*

Hypnotic and antirheumatic.

Hypnon. C_6H_5O or $C_6H_5COCH_3$ or $CO(CH_3)(C_6H_5)$. *Phenyl-methyl-ketone, Acetophenon, or Acetyl-benzol.*

This substance is a Ketone in which the group CO is associated with the two alcoholic radicals C_6H_5 (Phenyl) and CH_3 (Methyl) as under :



It may also be considered Acetone, $C_2H_5O.CH_3$, in which CH_3 is replaced by Phenyl (C_6H_5); or Benzene (Benzol) in which one H is replaced by Phenyl.

Its hypnotic properties were discovered by Drs. Dujardin-Beaumez and Bardet. It is prepared by the distillation of benzoate and acetate of calcium, and is a clear colourless liquid, becoming crystalline by moderate cold, with a persistent aromatic odour: taste resembling creasote. Sparingly soluble in water, but readily in alcohol.

THERAPEUTICS. More powerful than Chloral. Dr. Moebs, of Breslau, has reported unfavourably of it.

Dose, 4 to 16 minims, according to age and temperament, gives four to six hours' sleep: given dissolved in spirit and mixed with syrup.

Hypophosphites of Ammonia, Lime, Soda, Potash. $NH_4PH_2O_2$, $Ca_2PH_2O_2$, $NaPH_2O_2$, KPH_2O_2 .

Useful in first stages of consumption. Dose, 1 to 5 grains. Syrups generally contain 1 grain to the teaspoonful.

Hyraceum. *From Hyrax capensis, or Klipdas. South Africa. Order Hyracoidea.*

A grey-brown mass, bitter; the dried urine or the fæces of the animal. An anti-spasmodic, in doses of 5 to 15 grains.

Iatrol, or Jatrol.

A crystalline non-toxic compound "obtained by the action of nascent iodine upon one of the aniline group;" insoluble in water or oils; without odour. It is used as an antiseptic dressing and cicatrizant for wounds, and it can be made up in ointments with usual excipients. Manufactured by the Winton Pharm. Co., of Syracuse, New York.

Ichthyol. *Sodium Sulpho-ichthyolate.* $C_{26}H_{36}S_3Na_2O_6$.

A tarry-looking product from a brownish bituminous mineral, having animal residues of fish, &c., found in Seefeld, in Tyrol. Purified by distillation and treatment with sulphuric acid, then neutralised by ammonia (the better way) or by soda. It has an herb-like odour, is faintly alkaline, and contains 10 per cent. sulphur as a sulpho-acid.

THERAPEUTICS. Antiseptic: for eczema and other skin diseases, rheumatism, &c. Strength, an ointment of fossiline or vaseline, with 50 per cent. (or for children 10 per cent.) of ichthyol.

Lithium sulpho-ichthyol. Internally; dose, 5 to 20 grains.

Zinc sulpho-ichthyol. Externally in skin disease.

Unguentine is an American proprietary alum and petrolatum ointment, with 2 per cent. carbolic acid and 5 per cent. ichthyol.

Ichthyol-Sulphonate of Ammonium.

A red-brown syrup. Properties as the above. Has strong germicidal power in preventing the development of bacteria.

Imperatoria. *Peucedaneum ostruthium.* *Europe. N. O. Umbelliferae.*

Wrinkled conical root, with resin vessels; pleasant odour, and pungent taste; contains volatile oil and pungent crystalline *Imperatorin*. Stimulant tonic in doses of $\frac{1}{4}$ and $\frac{1}{2}$ drachm.

Inguvin. *From gizzard of Gallus Banckira, v. domesticus.*

Digestive dose, 5 to 10 grains. Dr. L. Beale, in 'Slight Ailments,' denies that it has any special properties. In the vomiting of pregnancy.

Iodine Trichloride. ICl_3 .

Orange crystals: a strong antiseptic and disinfectant, used in a solution of 1 part to 1000 of water.

Iodocaffeine. *Sodio-caffeine Iodide.*

A white powder, of which about 14 parts dissolve in 100 parts of water. The proportion of caffeine in the preparation is 65 per cent. According to Professor Rummo this iodocaffeine combines the actions of both caffeine and an alkaline iodide. It increases the contractile power of the heart and the arterial blood-pressure, and it also promotes diuresis. Dose, $\frac{1}{2}$ to 1 drachm, in cachets; several daily.

Iodocasein.

Yellowish, odourless powder, recently put forward as a substitute for iodoform.

Iodoform. CHI_3 . *Triiodide of Methenyl.* (*Chloroform*, CHCl_3 , is the *terchloride of methenyl*.)

CHARACTERISTICS. Small lemon-yellow lustrous crystals, or powder. Introduced into surgery by Van Mosetig-Moorhof in 1879.

THERAPEUTICS. A non-irritant antiseptic, destroying animal virus. Coumarin and eucalyptus oil best mask its disagreeable odour. Dose, $\frac{1}{2}$ to 2 grains, principally externally to ulcers, &c. Bougies, 3 to 4 inches long, for gonorrhœa. Ointments, 1 in 5 or weaker, are prepared with vaseline, fossiline, or lard.

The bacteria of pus seem to decompose Iodoform, setting free iodine.

Iodoformin. $\text{C}_3\text{H}_6\text{N}_2\text{I}_2$.

Red crystalline powder, containing 80 per cent. of iodine. Insoluble in most liquids, soluble in acetone. An antiseptic like iodoform or aristol, for ulcers, wounds, &c. As it liberates formol, it produces a stimulating action that helps the process of healing.

Iodoiodoformin is a compound of iodine and iodoformin, similarly employed.

Iodoformal is similar to Iodoformin.

Iodosuccinimide is another succedaneum for iodoform.

Iodogenin.

Mixture of powdered charcoal and potassium iodate, or some other oxygen compound of iodine, moulded into cones or pastilles. Fumigant and disinfectant (for ignition).

Iodol. *Tetraiodopyrrol* ; *Tetraiodide of Pyrrol.* $\text{C}_4\text{I}_4\text{N.H}$.

Discovered by G. Ciamician and P. Silber, of Rome, in 1885-6.

CHARACTERISTICS. A fine crystalline powder, yellowish white, without smell or taste. It has the feeling of, and adheres to the skin like, French chalk. Prepared from etheric animal oil (*oleum animale Dippelii*) and iodine in an iodide of potassium solution. It contains 88·97 per cent. of iodine in combination, is free from the disagreeable odour of iodoform, and is said to well advance the process of granulation. To be kept in a dark place.

Insoluble in water ; easily soluble in alcohol or warm oil. Heated to 100° Centigrade, iodine is liberated.

THERAPEUTICS. An antiseptic, taking the place of iodoform, being non-toxic, harmless when absorbed, and less irritating to wounds.

IODOL—*continued*.

It can be employed as a dusting powder, or as an alcoholic solution, with the addition of glycerine, or as an ointment or emulsion.

FORMULA—solution for surgical cases :

Iodol	...	...	...	...	1 gramme.
Alcohol	...	...	...	...	16 grammes.
Glycerine	...	...	...	...	24 „

Ointment : 2, 3, or 5 parts iodol to 10 parts vaseline or fossiline.

The compound *Iodaseptol* (iodo-ortho phenol-sulphonic acid) has so far been but little used.

Di-iodocarbazol is an antiseptic.

Iodol Caffeinate. *Caffeiniodol.* $C_8H_{10}N_4O_2.C_4I_4NH$.

This is a clear grey crystalline powder, without either taste or odour. By most solvents it is only dissolved slightly, or not at all. It contains 74.6 per cent. of iodol and 25.4 per cent. of caffeine.

Iodonaphthol beta.

A di-iodised derivative of beta-naphthol. An amorphous greenish-yellow powder, darkening with the light, without taste or odour; soluble in chloroform, less in alcohol, and insoluble in water. Used externally, like iodoform or aristol, with the same doses and formulæ.

Iodophenin.

Introduced by Scholvien, of Berlin. Formed by mixing an acidulated solution of phenacetin with 50 per cent. iodine. A brown powder, with iodine odour, and burning taste, and soluble in alcohol. A local antiseptic in solution of 1 in 5000.

Iodopyrin.

This chemical combination was first prepared by Dittmar, and obtained by replacing one atom of hydrogen in antipyrin by one of iodine. Its colourless, silky, needle-like crystals, practically tasteless and odourless, are only slightly soluble in cold water. Dose, 5 to 10 grains.

Iodotheobromine.

A double iodide of theobromine and sodium. A white powder, soluble in hot water, and containing about 40 per cent. of theobromine. A cardiac diuretic. Dose, 5 to 20 grains each day.

Iodozone.

Is a name given by Robin to a solution of iodine in ozone. The solution appears to be a complete one, as no free iodine can be detected. It is recommended to be used as a spray in pulmonary tuberculosis, and on open wounds.

Ionone. $C_{13}H_{20}O$.

Discovered by Tiemann and Krüger. Is a liquid, easily soluble in alcohol, ether, benzol, and chloroform, and possesses the smell of violets in a highly concentrated degree. It is sold in an alcoholic solution of 10 per cent., and in this form it may be used in perfumery.

Ipomæa Pandurata. *Wild Jalap; Manroot. N. America. N. O. Convolvulaceæ.*

Conical root, generally sliced, with bitter-sweet taste. Contains a resin (glucoside), 1 to 2 per cent.

Diuretic and cathartic, in doses of $\frac{1}{4}$ to 1 drachm.

Iridin, or Irisin. *From Iris versicolor; Blue Flag. N. America. N. O. Iridaceæ.*

Long jointed rhizome. The active resinoid is an hepatic stimulant, only slightly stimulating the intestines. Dose, 1 to 2 grains to be taken in a pill at bedtime: its effect is rather depressing to the system. *I. germanica* is the principal source in Tuscany of orris root. *Iris virginica* is Boston iris.

Of benefit in the vomiting of pregnancy: 2 grains at night followed by a saline aperient in the morning.—*Medical Times*, April 19th, 1884, p. 539.

Iron and Magnesium Sulphate. $FeSO_4 - MgSO_4 + 6H_2O$.

A greenish-white crystalline powder, soluble in water. Recommended by Dr. H. Woods (*British Medical Journal*) for anæmia and chlorosis, in doses of $7\frac{1}{2}$ grains three times daily, with but little astringent or purgative action.

Iron-Casein. *Nucleo-albuminate of Iron.*

Casein treated with a solution of fresh lactate of iron, and the precipitate dried; the latter contains 3 per cent. of iron, and is easily digested.

An iron nutritive tonic, in doses of 5 to 8 grains daily.

Izal.

Resembling creolin, &c., contains varying proportions of cresols, hydrocarbons, and water. "Diluted with 100 parts of water it is a reliable antiseptic, more powerful than carbolic acid, non-irritant, and in moderate doses not poisonous."—S. Delépine, *Manchester Med. Chronicle*, vol. iii, p. 434.

Jaboraudi. *Pilocarpus pinnatifolius.* *Brazils.* *N. O. Rutaceæ.*

Leaves, large and coriaceous, with characteristic indentation at apex and revolute margins. Introduced in the British, German, U.S.A., and French Pharmacopœias. Powerful sudorific and diaphoretic. Dose: fluid extract, 3 to 20 drops; tincture (1 in 2), 13 to 60 drops. Its alkaloid is *Pilocarpine*, which see.

Jacaranda Laucifoliata. *Columbia, South America.* *N. O. Bignoniaceæ.*

CHARACTERISTICS. The leaves and bark of this and allied species of *Bignonia* have been in use for many years in South America for syphilis. They have lately been introduced into Continental practice, and have been favourably reported on by medical men in England.—*Lancet*, February 28th, 1885; *British Medical Journal*, February 14th, 1885. See *Caroba*.

An alkaloid, *Carobin* (Peckolt), is found in some of the *Bignoniæ*.

One fluid ounce of the fluid extract is equal to one ounce of the leaves. Dose, 20 to 30 minims. *Salud* is a fluid extract of this plant.

Jambul. *Syzygium Jambolanum; Eugenia Jambolana.* *West India (hills).* *N. O. Myrtaceæ.*

CHARACTERISTICS. The edible fruit, of bluish-black colour, pulpy, is astringent; also the bark. The hard seeds (which have a papery shell or endocarp) are used after being dried and powdered.

THERAPEUTICS. In diabetes the powdered fruit stones have been found to reduce the quantity of urine excreted, and to lessen the sugar. Dose, $2\frac{1}{2}$ to 5 grains three times a day. "It greatly relieves though it may not cure diabetes."—*British Medical Journal*, March 19th, 1887; *Lancet*, October 8th, 1887.

The fluid extract of bark (as well as fruit) has, in the large doses of 2 fluid ounces per day, caused the disappearance of the sugar in glycosuria.

JAMBUL—continued.

FORMULA, as suggested by Dr. Pavy (to prevent constipation):

Codeinæ	...	...	...	...	4 grains.
Pulv. Sem. Jambul	...	...	...	...	28 „
Ext. Cascar. Sagrad.	...	...	...	...	1 grain.
Fiant pil. 8, 1 ter die sumend.					

Jequirity. *Abrus precatorius*. *Indian Licorice*. *India and Brazil*. *N. O. Leguminosæ*.

The small scarlet seeds, with black patch at hilum (love peas, prayer beads), are used as weights in Burmah, and in Brazil against granular ophthalmia.

The thick twisted root, containing glycyrrhizin, is used in India as a demulcent.

THERAPEUTICS. The seeds are very poisonous; the active principle is similar to *Ricin*, the violently poisonous albuminoid in the seeds of *Ricinus communis*; this coagulates the blood, and probably exists also in the seeds of *Croton tiglium* and *Jatropha curcas*.

“An infusion from seeds (considered poisonous) of this small woody plant produces an artificial ophthalmia, curing rapidly obstinate granulations.”—*Lancet*, July 21st, 1883.

The false Jequirity, from *Adenanthera pavonina*, has not the properties of the true.

Juglandin. *Juglans cinerea*; *J. alba*. *Butternut*; *White Walnut*. *N. America*. *N. O. Juglandaceæ*.

Active principle of bark. A laxative hepatic stimulant and alterative. Dose, 2 to 4 grains. In French Codex, 1884. Infusion of leaves of *Juglans regia*, walnut, has been used as a substitute for cod-liver oil. The crushed seeds produce 25 per cent. of a bland oil.

Jujubes. *Zizyphus vulgaris* (*Rhamnus zizyphus*—Linn.). *Shores of Mediterranean*. *N. O. Rhamnaceæ*.

The fruit of this shrub, reddish-brown drupes, size of olives, have a sweet demulcent pulp of a vinous taste; their decoction, with gum and sugar, was the original jujube paste of France. In French Codex, 1884.

Jurubeba. (See *Solanum Paniculatum*.)

Kairin. *Ethyl-kairin.* $C_{11}H_{16}ONCl = C_9H_6(OH).(H_3.C_2H_5)N.HCl.$ *Oxycholine-methyl Hydride.*

An alkaloid discovered by Fischer, of Munich, prepared by synthesis from coal tar, with bitter taste. Soluble in water or alcohol.

THERAPEUTICS. It reduces fever temperature. Dose, 8 grains. Fallen into disuse.

Kalmia Latifolia. *Mountain Laurel. N. America. N. O. Ericaceæ.*

Its oval leaves are a poisonous narcotic in large doses, but in small doses astringent and a heart sedative. They contain tannin, arbutin, and the poisonous neutral *Andromedotoxin*. Dose of fluid extract, 2 to 5 minims.

Kava-kava. *Ava-ava. Piper methysticum. Pacific Islands. N. O. Piperaceæ.*

Large pale whitish spongy rhizome and rootlets, with slight unpleasant odour and rather hot taste. Kava—the intoxicating drink of the Pacific Islands, prepared in twenty minutes (and therefore without fermentation) by the root of leaves being masticated—produces a melancholy drunkenness. The root contains a yellow essential oil, 2 per cent. of a neutral balsamic resin, Lewinine, and two crystalline principles, Kavahine and Methysticin, $C_{16}O_{18}H_5$, discovered in 1844 by T. N. R. Morson.

THERAPEUTICS. The root is employed in muco-purulent discharges from the urethro-vesical mucous membrane, first so recommended in Europe in 1857. It is considered in America to have a marked action on the genito-urinary tracts. Dose of fluid extract, 1 drachm three times a day on a full stomach. Tincture (1 in 5 proof spirit): dose, 1 fluid drachm. “Of benefit in cystitis and urethritis; inferior to copaiba and sandal oil, but more pleasant to take.”—E. H. Fenwick, *Lancet*, September 24th, 1887.

Keratin.

Obtained by treating horn shavings with ether, alcohol, and an acid; is not acted on by the gastric juice, but is freely soluble in the intestines. It is recommended for coating pills containing drugs intended to destroy intestinal worms, which drugs, if absorbed by the stomach, would either cause toxic symptoms or have their germicidal activity impaired.

Kieselguhr. *Infusorial Earth.*

Consists of the shells or skeletons of microscopic animalcula. Chemically it is composed of pure silicic acid, with a small proportion of iron. In the natural state it contains, besides this, sand and organic matter.

Heated and washed kinds are free from sand and organic matter.

The uses of Kieselguhr are numerous; its chief properties are the minuteness of the atoms, and the consequent faculty of absorbing great quantities of liquid,—25 per cent. of Kieselguhr absorb 75 per cent. of water.

Kokum Butter. (*See Garcinia.*)**Kola-cordinette.**

An American proprietary liquid, containing kola and strychnia; a strong tonic stimulant, in one and two teaspoonful doses.

Kola Nut. *Sterculia acuminata.* *West Africa.* *N. O. Sterculiaceæ.*

Large reddish-brown edible seeds, about the size of a pigeon's egg; the two fleshy cotyledons, curiously hooked together when fresh, fall asunder in drying. They contain more caffeine than many coffees (2·3), as well as theobromine, glucose, tannin, and starch, with very little fat. Tincture, extract, and wine are in the new French Codex Supp., 1895.

THERAPEUTICS. A tonic stimulant to the nervous system; it also renders agreeable impure water. Dose of fluid extract, 10 to 30 drops.

Koromiko. *Veronica salicifolia* and *V. parviflora.* *N. Zealand.* *N. O. Scrophulariaceæ.*

Used in China and in New Zealand against dysentery and diarrhoea. The Maories chew the leaves, and also make an infusion of them. A tincture (1 in 5 proof spirit) is used for dysentery. Dose, 15 drops to 2 drachms; "thirty doses cure."—*Lancet*, July 21st, 1883.

Kosin; Koussin. $C_{31}H_{38}O_{10}$. *From the female flowers of Brayera anthelmintica (Hagenia abyssinica—Lamarck).* *N. O. Rosaceæ.*

The active principle, Koussin, is a pale fawn powder; Kosin is a crystallised substance.

THERAPEUTICS. For tapeworm: dose, for adults, $\frac{1}{2}$ to 1 drachm; for children, 15 to 30 grains; this quantity to be divided in three portions, to be taken at intervals of one hour.

Kosotoxin is another active principle, a whitish powder; it is a strong muscle-poison.

Konmis.

Prepared by the fermentation (into alcohol, lactic acid, and carbonic acid gas) of mare's milk, by Kefir; the latter consists of the spores of *Dispora caucasica* and *Saccharomyces cerevisia*. It has peptonising properties. It can be also produced from cow's milk.

Kreat.

The Indian name for *Andrographis paniculata* and *Ophelia chirata*, as a tonic in malarial fevers. *Kreat-Halviva* is probably made from one or both of these.

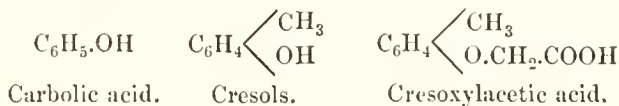
Kreatin. $C_4H_9N_3O_2$.

Discovered by Chevreul in 1835: an extractive existing in animal tissues, as muscles. An opaque, white, odourless, bitter solid. It may be considered as one of the beneficent ptomaines. Kreatinin, closely allied, is principally found in the urine.

These two extractives give the stimulating virtues to beef extracts. Dose of Kreatin, $1\frac{1}{2}$ grains four times a day in powder.

Kresin.

Contains 25 per cent. of cresols; as a means for dissolving it an equal amount of sodium cresoxylacetate is added, a substance that also possesses antiseptic and germicidal properties. The chemical relations of the cresols and of cresoxylacetic acid to carbolic acid are shown by the formulæ—



Kresin is a brown liquid, smelling like cresol, free from toxic carbolic acid, forming a clear neutral solution when mixed with water. Of antiseptics it approaches near to corrosive sublimate in its action, but is relatively not poisonous, and does not corrode metals, whilst its action is not impaired by the presence of albumen in secretions.

Kristalline.

A form of collodion, made by dissolving gum-cotton in methyl alcohol. It evaporates slowly, giving a perfectly transparent film, lasting about a week. As it easily dissolves chrysophanic, salicylic, and pyrogallic acids, corrosive sublimate, &c., it forms a vehicle for them in skin diseases.

Labiatae Odoriferous Herbs. *N. O. Labiatae.*

These are useful, from the presence of volatile oils, as carminative, stimulant, pectoral nervine, sudorific, sedative, diaphoretic, and diuretic medicines: some are emmenagogues.

They are mostly wild in Europe; they are herbs with small flowers and generally quadrangular stems.

<i>Mentha piperita</i>	...	...	...	Peppermint.
<i>Mentha viridis</i>	...	...	...	Spearmint.
<i>Monarda punctata</i>	...	...	...	Horse-mint (U. States).
<i>Origanum vulgare</i>	...	...	...	Wild marjoram.
<i>Origanum marjorana</i>	...	...	...	Sweet marjoram.
<i>Hyssopus officinalis</i>	...	...	...	Hyssop.
<i>Cunila mariana</i> ...	...	...	...	Dittany (U. States).
<i>Lycopus europæus</i>	...	...	...	Bugle.
<i>Melissa officinalis</i>	...	...	...	Balm.
<i>Thymus serpyllum</i>	...	...	...	Wild Thyme.
<i>Hedeoma pulegioides</i>	...	...	...	Pennyroyal.
<i>Nepeta cataria</i>	...	...	...	Cat-mint.
<i>Nepeta glechoma</i>	...	...	...	Ground ivy.
<i>Marrubium vulgare</i>	...	...	...	Horehound.
<i>Leonurus cardiaca</i>	...	...	...	Motherwort.
<i>Scutellaria lateriflora</i>	...	...	...	Skullcap (N. America).

Lachnanthes Tinctoria. *Red Root. Spiritweed. Carolina, U.S.A.*
N. O. Hamadoraceæ.

It has been used to relieve the cough of consumption. Tincture (1 of herb in 10 proof spirit) dose, 3 to 10 minims.

Lactol. *Lacto-naphthol.*

A compound prepared in France by Dr. Coez; it is the lactic ether of β -naphthol, and is analogous to benzo-naphthol. It splits up into lactic acid and naphthol in the alimentary canal.

Lacto-peptine.

A mixture of pepsine and pancreatine with sugar of milk, but believed to be deficient in the strength that is naturally possessed by these two digestive ferments. Dose, 10 to 20 grains.

Lacto-phenin. $C_{11}H_{15}NO_3$.

Lacto-phenin is phenacetin in which the acetic acid group has been replaced by lactic acid. It is a white insipid powder, soluble

LACTO-PHENIN—*continued*.

in 330 parts of water. In small doses it acts as an analgesic, while large doses have an hypnotic action. The ordinary dose is 10 grains three times daily.

Lactytropeine.

This preparation forms bundles of acicular needles, melting at 74° to 75° C. It is readily soluble in water, alcohol, ether, or chloroform. The hydrochloride forms colourless soluble crystals. The hydriodide is also crystalline, soluble in water, sparingly in alcohol.

Laminaria Digitata. *Atlantic Ocean. N. O. Algæ.*

The brown stems are used, when pressed, as absorbent dilatable tents; they contain mucilage and mannite.

Lanolin. (*See Adeps Lanæ.*)**Lantana Brasiliensis.** *Jerba sagrada. S. America. N. O. Verbenaceæ.*

Its alkaloid is *Lantanine*, a white bitter powder.

It is given in intermittent fevers as an antipyretic.

Dose, 15 to 30 grains a day, in pills.

Laserpitium Latifolium. *White Gentian. Europe. N. O. Umbelliferae.*

Wrinkled brown root, with white fracture; numerous orange-coloured resin ducts in bark (Maisch). Tonic stimulant (dose, 1 drachm) from its volatile oil and bitter principle.

Ledum Latifolium. *Canada. N. O. Ericaceæ.*

Labrador tea consists of the elliptic revolute leaves, with heavy odour and astringent taste; it is a stimulant tonic, $\frac{1}{2}$ drachm infused in water.

Ledum palustre, marsh tea, is similarly employed, and an oil obtained from it is externally antirheumatic.

Leptandra Virginica. *Culvers, or Black Root. N. America. N. O. Scrophulariaceæ.*

A long, branched, scarred rhizome, with brittle rootlets and bitter taste. It contains bitter, crystalline, soluble *Leptandrin*, resin, saponin, and tannic acid. A purgative cholagogue. Dose of fluid extract, 20 to 60 drops.

Leptandrin. *From Leptandra virginica.*

This is a greenish-brown eclectic resinoid or alcoholic extract. Strong action on liver, but feeble on intestines. It stimulates the hepatic secretions: useful in typhoid fever, combined with hydrastin and quinine. Dose, 1 to 2 grains.

Levisticum Officinale. *Lorage. S. Europe. N. O. Umbelliferæ.*

The branched stem and roots are used as a carminative (dose, $\frac{1}{2}$ drachm in infusion), and the volatile oil in perfumery.

Liatris Odoratissima. *Deer-tongue. N. America. N. O. Compositæ.*

The radical leaves of a handsome annual collected in Southern States; when dried they develop a pleasant odour. Used principally to scent tobacco. Contain coumarin.

Lignosulphite.

A liquid obtained in the manufacture of cellulose, containing volatile oils, &c. Its inhalation, or even its evaporation in a room, has proved of benefit in tuberculosis.

Lippia Mexicana. *Mexico. N. O. Verbenacæ.*

The leaves (preferably fresh) have been used in America when the bronchial tubes are dry and constricted, or expectoration is too profuse. Owes its activity to an easily volatilised camphor and an essential oil. Teaspoonful doses of the fluid extract, from time to time, in demulcent drinks.

Liriodendron Tulipifera. *U. States. N. O. Magnoliacæ.*

The purplish-brown bark, in quills, is used as a tonic febrifuge; dose, 1 to 2 drachms. It contains a resin, *Liriodendron*, and a white alkaloid heart tonic, *Tulipiferine*. *Magnolia glauca*, of the same order, has a bark similarly used in North America; it contains a tasteless crystalline glucoside. The fruit of *M. tripetala* has a crystalline principle, *Magnolin* (Maisch).

Lithium Benzoate. $\text{LC}_7\text{H}_5\text{O}$.

White, granular powder, with faint odour. One of the best gout medicines. Soluble in 4 parts of water. Dose, 2 to 10 grains.

Lithium Bitartrate. *Tartarlithine.*

A white powder, soluble in water. In gouty, suppurative gingivitis, in 5-grain doses, each in a quart of aerated water.—*Lancet*, June 30th, 1894.

Lithium Bromide.

In white deliquescent granules, well replacing potassium bromide, as it contains more bromine. Diuretic. Dose, 5 to 15 grains.

Lithium Guaiacate or Guaiacate.

A scale preparation, containing 3 parts of guaiacum and 1 part of lithium. Used in gont. Dose, 5 grains a day, in two or three pills.

Lithium Hippurate.

Small white crystals, soluble in water. In gout, to dissolve urates. Dose, 4 to 15 grains.

Lithium Salicylate.

White powder, soluble in water. Gout. Dose, 4 to 15 grains. In Germ. Pharm. (Add.).

Lobelia Inflata. *Indian Tobacco. N. America. N. O. Campanulaceæ.*

A plant with long racemes of pale blue flowers, whose leaves and small reticulated seeds are used. It contains *Lobeline*, an acrid, soluble alkaloid, in white powder.

A narcotic nervine purgative (dose, 5 to 20 grains), poisonous in large doses.

Loretin. $C_9H_4IN.OH.SO_3H$.

This antiseptic, discovered by Professor Claus, is meta-iodo-ortho-oxyquinoline-ana-sulphonic acid. It is not only an iodine preparation, but it combines the characters of a phenol and of an organic sulphonic acid. Loretin is a bright yellow-coloured crystalline powder, not unlike iodoform in appearance, but from which the absence of odour distinguishes it. It is slightly soluble in water and in alcohol, and practically insoluble in ether and in oils. It may be therefore employed as Loretin powder, either alone or mixed in different proportions with suitable materials, as calcined magnesia, French chalk, starch, &c. Loretin ointment, 5 to 10 per cent. with vaseline, lanoline, or fossiline.

Losophan. $C_6H_4I_3.OH.CH_3$. *Tri-iodo-metacresol.*

In white crystalline powder, without odour, melting at $121^{\circ} C$. Non-toxic. Effective in parasitic skin diseases, such as acne, prurigo, pityriasis, and eczema, in a 1 to 2 per cent. solution in alcohol, or a 3 per cent. ointment.

Lupulin. *From strobiles of Humulus lupulus. Hop. N. O. Urticaceæ.*

Yellow glandular powder. Aromatic bitter. Dose, 2 to 4 grains. Contains 3 per cent. of volatile oil. The fluid extract, tincture, and oleo-resin, of Hops are also used.

Lycetol.

Lycetol is the name applied to the tartrate of dipropylenediamine (dimethylpiperazine)—a derivative of piperazine. It is a white powder, soluble in water. Lycetol is employed like piperazine as a solvent of uric acid; and, besides having the property of dissolving uric acid, it is said to be a reliable diuretic. Dose, $\frac{1}{2}$ to 1 drachm daily for at least three weeks.

Lycoperdon Giganteum. *Giant Puff-ball. N. O. Fungi.*

Employed as a soft surgical dressing, from its properties as a local hæmostatic; the interior dusty mass, being the capillitium and spores of the mature plant, is used. "Amadou," or oak agaric, is from *Boletus igniarius* (*Polyporus igniarius*).

Lycopodium. *L. clavatum. Club-moss. Europe. N. O. Lycopodiaceæ.*

The yellow spores of the club moss. The ethereal tincture, dissolving the fixed oil, about 45 per cent. (after fracturing envelopes of spores by a long trituration with sugar of milk), is beneficial for boils, and is reported to do good to the three great tracts of mucous membrane. Dose of tincture, 15 minims to 1 drachm in water twice a day. "Of real value in irritable bladder."—*Lancet*, September 24th, 1887.

Piliganine is the alkaloid of *L. saussurus*, Brazils, discovered by Adrian of Paris. A soft yellow mass; poisonous, emetic, cathartic.

Lysidine. $C_4H_5N_2$.

An artificial base obtained as hydrochloride by heating together sodium acetate and ethylene-diamine-hydrochloride. Prepared by Prof. Ladenburg, of Breslau. A strongly alkaline, crystalline body, very hygroscopic, soluble in water, with a morsey odour. Said to be useful in uric acid diathesis. Given in gradually increasing doses, 1 grm. the first day to 5 grm. the fifth day, largely diluted with water. For gout and calculi, in doses of 15 to 60 grains daily, dissolved in aerated water. Sold in an alkaline 50 per cent. solution. Garrod thinks that "it is difficult to see how the introduction into the blood of an organic base can dissolve the very insoluble sodium biurates."—*Practitioner*, vol. lv, p. 286.

Lysol.

An alkaline solution, saponified, of portions left in the manufacture of some coal-tar products chiefly composed of cresols. A brown oily liquid, smelling of tar, soluble in water. An antiseptic disinfectant and microbicide in the proportion of a drachm in a quart of water.

Magnesium Gynocardate.

The magnesium salt of gynocardic acid, from oil of chaulmoogra. Roux has recommended this salt in leprosy in the following form :

Magnesii Gynocarditis	...	...	...	...	4 grammes.
Ext. Gentianæ	...	...	...	...	1 gramme.

M. Make 20 pills. Dose, 5 to 20 pills daily before meals.

Magnesium Sulphite. MgSO_3 .

White, crystalline, antiseptic powder, sparingly soluble in water ; to be insufflated and taken internally several times a day in diphtheria. —*Lancet*, February 9th, 1895.

Magnesium Sulphophenate. $\text{Mg}(\text{C}_6\text{H}_5\text{SO}_4)_2$.

Occurs in white needle-like crystals, soluble in water and alcohol. Given in doses of 15 to 30 grains. A laxative where an intestinal antiseptic effect is desired.

Malakin. *Salicyl-paraphenetidin*.

Formed from salicylic aldehyde and paraphenetidin ; in yellow silky needles, insoluble in water, soluble in hot alcohol ; it is decomposed into its two elements by gastric juice. Febrifuge and antirheumatic ; a quarter-drachm reduces temperature two or three degrees in two hours. Less violent in its effects on the system than salicylates (about half as powerful), it is beneficial in acute articular rheumatism, or in the weak stages of typhoid fevers. Dose, 15 grains in cachets, four per day.—Dr. R. Abernethy, *Edin. Med. Journ.*, vol. xl, p. 692.

Malleine.

An extract of the cultures of the bacillus of glanders is used for the diagnosis of the latter, in the same manner as Dr. Koch's tuberculine to detect tuberculosis. Horses suffering from glanders react after the treatment with malleine by symptoms of fever. It is sold in doses of 0.075 gramme.

Manaca. *Franciscea uniflora*. Brazil. N. O. *Scrophulariaceæ*.

The pale brown, hard, odourless root and stem, covered with bark. It contains an active alkaloid, *Manacine*, and a fluorescent compound nearly identical with gelseminic acid.

MANACA—*continued*.

THERAPEUTICS. Diuretic and purgative; it purifies the blood, and is antisyphilitic; by inducing profuse perspiration is used in rheumatism. Dose of root, 1 drachm to $\frac{1}{2}$ ounce; of fluid extract, 5 to 20 drops, thrice daily.

Manganese Ferripeptonate. *Pepto-mangan.*

An American proprietary, made by M. J. Briettenbach and Co. A liquid, aqueous, glycerine solution of peptonates of iron and manganese. A tonic digestive.

Manzanita. *Arctostaphylos glauca.* California. N. O. Ericaceæ.

Ovate-oblong, glaucous, pale-green leaves, containing arbutin and 10 per cent. tannic acid. Used like leaves of *Arctostaphylos uva-ursi*.

Markasol.

An American proprietary, made by Kress and Owen Co., Fulton Street, New York.

It is Bismuth boro-phenate, and is an aseptic dry dressing for wounds, &c.

Mate. *Paraguay Tea.* *Ilex paraguayensis.* Brazils; Argentina. N. O. Ilicineæ.

A mixture of broken-up stems and leaves, dull green, of a pleasant tea-like odour. The hot infusion, prepared as ordinary tea, is taken through a tube in South America.

THERAPEUTICS. It refreshes and prevents decay of tissue; a nervous stimulant, it contains about 10 per cent. tannin and 1 per cent. caffeine. The restorative power of Yerba-maté is thought much of, especially by nursing mothers and dyspeptic subjects. Fr. Codex, '84.

Ilex verticillata, black alder, winterberry. Its thin bark is used in the United States as an astringent tonic. *Ilex opaca* is the holly.

Melachol.

The preparation introduced under this name is a concentrated solution of sodium citrophosphate, and is recommended for liver complaints.

Melia Azedarach. Asia. N. O. Meliaceæ.

Root bark, in reddish-brown curved quills, deprived of its corky layer, containing a bitter resin. Emetic and anthelmintic in doses of 10 to 30 grains, generally in decoction.

Melilotus Altissimus. *M. officinalis.* Sweet Clover. Europe. N. O. Leguminosæ.

A high-growing plant, with yellow or white racemes of flowers and aromatic odour. It contains coumarin and the fragrant volatile oil, *Melilotol*. Used principally as an external discutient stimulant.

Menispermum Canadense. *Canadian Moonseed; Yellow Parilla. N. America. N. O. Menispermaceæ.*

Long, thick, knotty, yellowish rhizome with brittle rootlets. Tonic, laxative, and alterative. Dose of fluid extract, 1 fluid drachm.

Menispermine, or *Menispine*. $C_{18}H_{24}N_2O_2$. From *Menispermum fenestratum*. This is a white alkaloid. *Menispermin*, the yellowish extractive resinoid; alterative tonic. Dose, 1 to 4 grains of latter.

Menthol. $C_{10}H_{20}O$, or $C_{10}H_{18}H_2O$. *White stearoptene of Japanese Mentha arvensis, var. piperascens, and Mentha canadensis, var. glabrata. Also in Europe from Mentha piperita. N. O. Labiatæ.*

White acicular crystals. One of the two isomeric oils of which the Japan oil of peppermint consists; this solid stearoptene, forming about half its weight, is used topically in neuralgia. *Po-ho-yo* is liquid Chinese oil of peppermint, containing menthol. A mixture of lanolin, menthol, and cocaine is excellent for neuralgia and chilblains. Emp. Menthol (menthol, wax, and resin) is in the 1890 Add. to B. P. In 1895 Codex Supp.

Dr. R. Wünsche, of Dresden, says that a solution of 2 parts of menthol in 20 parts of chloroform will arrest the progress of a cold in its initial stage. From 4 to 6 drops of the solution should be quickly rubbed between the hands, then placed before the face, and the remedy energetically inhaled through nose and mouth. The volatile parts of the solution impregnate the mucous membranes of the nose, mouth, and throat, stop the tendency to sneezing, and often arrest the progress of the cold.

Analgesic in Dental Caries.—Solution: menthol, 3 parts; chloroform, 5 parts; or atropine sulphate, 1 part; morphine sulphate, 2 parts; distilled water, 300 parts. Externally: saturate a pledget of cotton with this solution, and introduce into the carious cavity.

Menyanthes Trifoliata. *Buck-bean, Bog-bean, or Marsh Trefoil. Indigenous. N. O. Gentianaceæ.*

This indigenous plant is again coming into use.

THERAPEUTICS. Its general action is that of an astringent tonic, but in larger doses it may produce vomiting.

“It has also lately been used with success as a remedy for functional amenorrhœa.”—Dr. Pollock, *Lancet*, January 17th, 1885.

Dose, 15 to 30 minims of fl. ext. in half a tumbler of hot water, or 2 ounces of infusion.

Mercuric Carbolate or Phenylate.

An organic salt of mercury. Colourless crystals, insoluble in water. Internally for syphilis, as being easily absorbed; dose, $\frac{1}{4}$ to $\frac{1}{2}$ grain in pill.

Sublimophenol, in white crystals, is a mixture of earbolate and bichloride of mercury; powerfully antiseptic.

Mercurous Tannate.

Green powder, without odour or taste, containing half its weight of the metal. For syphilis, rapidly absorbed, dose $1\frac{1}{2}$ grains in pill.

Mercury Amido-propionate. $\text{Hg}(\text{CH}_3\text{CH}[\text{NH}_2]\text{COO})_2$.

White crystalline powder, safe and effective, for syphilis. Internally and injected subcutaneously; dose, $\frac{1}{10}$ to $\frac{1}{5}$ grain.

Mercury and Zinc, Involute Cyanides of.

Recommended by Lister for surgical dressings.

A white crystalline powder, insoluble in water. According to Dunstan this is a physical involution of particles of soluble mercury cyanide, about 36 per cent., by coatings of insoluble zinc cyanide occluding or enclosing the first named.

To be made into a thickened mass with starch paste, to which may very well be added a solution of mercuric chloride (1 in 4000), for non-irritating surgical dressings.—Sir J. Lister, *Lancet*, January 4th, 1890.

Mercury, Double Chloride of, and Ammonium. *Sal Alembroth.*

One molecule of Hg sublimate in combination with two of ammonium chloride. In white crystals, soluble in water; a strong non-irritating, external antiseptic. Gauze containing 1 per cent. and also 2 per cent., wool and cotton wool containing 2 per cent., are used. Also subcutaneously for syphilis, $\frac{1}{2}$ grain in water once or twice a week.

Mercury Formamide. $\text{CHONHg. (H.CO.NH)}_2\text{Hg.}$

Proposed by Liebreich for syphilis, subcutaneously. A colourless liquid, from which the metal is deposited in the tissues. Formamide (CHO.NH_2), a colourless liquid, is prepared by heating ethyl formate

MERCURY FORMAMIDE—*continued*.

with alcoholic ammonia; this dissolves mercuric oxide. Solution 1 per cent. of mercury formamide for subcutaneous injection in tertiary syphilis, very easily absorbed. Keep in brown glass. Dose, half to one ordinary hypodermic syringe-ful.

Mercury Imido-succinate. *Mercuric Succinimide.*

A white, odourless powder, very soluble in water, containing about half its weight of mercury. Antisyphilitic. Given in hypodermic injections of a 2 per cent. aqueous solution.

For intra-muscular injections in syphilis.

Mercury imido-succinate	...	...	2 grammes [30 grains].
Cocaine muriate	...	...	1 gramme [15 grains].
Distilled water	...	...	100 grammes [$3\frac{3}{8}$ fl. oz.].

Filter. Inject one syringe-ful [16 minims] daily.

Mercury-Thymol Acetate.

A white crystalline powder, insoluble in water, soluble in weak alcohol. For intra-muscular hypodermic injections in syphilis.

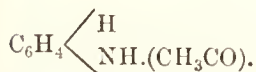
Mercury thymol-acetate	...	...	1 gramme [15 grains].
Glycerine	...	...	10 grammes [2 fl. dr.].
Cocaine muriate	...	...	0.1 gramme [$1\frac{1}{2}$ grains].

Inject one syringe-ful [16 minims] weekly.—*Bulletin Merck.*, December, 1890.

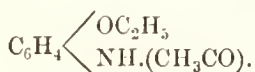
Grey Oil. A mixture of lanolin and mercurial ointment, equal parts, liquefied with olive oil, 4 parts to 6 parts of the solid mixture; it contains 30 per cent. of metallic mercury. It is injected subcutaneously in syphilis.

For other Salts of Mercury, see page 104.

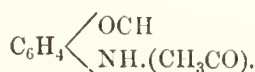
Methacetin. *Acet-para-anisidine.* $C_6H_4 \begin{matrix} \diagup OCH_3 \\ \diagdown NH.(CHCO). \end{matrix}$



Acetanilide (antifebrin).



Phenacetin.



Methacetin.

An odourless, crystalline powder, having a saline taste, and melting at $127^\circ C$. It is soluble in cold water, but more so in warm, and still more readily in alcohol. It lowers the temperature to some extent in fever in doses of 3 to 5 grains.

Methyl Blue and Methylene Blue.

Methyl blue has been recommended as an antiseptic in diphtheria and certain other diseases, in a mixture containing 2 parts of methyl blue and 98 parts of powdered sugar. Methylene blue is given internally in doses of about 3 grains (in pills or capsules), in rheumatism of the joints and muscles; also as an analgesic, administered hypodermically in doses of $\frac{1}{10}$ to 3 grains. Methyl blue is the sodium salt of triphenyl-pararosaniline-sulphonic acid. A dark blue powder, soluble in water, forming a blue solution. Methylene blue, also known as Äthylenblau, is a salt of tetramethylthionine: the most usual is the double chloride of zinc and tetramethylthionine.

Methyl Chloride. CH_3Cl .

A liquefied gas, used as a spray, as a local anæsthetic, for sciatica and similar neuralgic affections.

Methylal. *Dimethyl Ether of Methylene; Methene Dimethylate.* $\text{C}_3\text{H}_8\text{O}_2 = \text{CH}_2(\text{OCH}_3)_2$.

A colourless fluid with ethereal odour and pungent taste. Soluble in water (3 parts) and alcohol, and boiling at 107°F . S. g. .855.

THERAPEUTICS. A soothing hypnotic. Externally, as an anodyne, in oil or ointment, with 15 per cent. of Methylal; internally, in doses of 20 to 50 grains to produce sleep.

FORMULA.

Syr. Aurantii ...	...	...	...	...	1 ounce.
Methylal ...	...	...	...	...	20 grains.
Aquæ ...	...	...	...	...	2 ounces.

To take as one dose.

A rapid hypnotic, but its effects soon pass off.

Methylene Bichloride. *Methylene; M. Chloride, M. Dichloride.* CH_2Cl_2 .

A heavy, volatile, colourless, mobile liquid, with a chloroform odour; by Spencer Wells and others preferred to chloroform as an anæsthetic, on account of its not producing vomiting. In its place, a mixture, by measure, of 4 parts of chloroform and 1 part of methylic alcohol has been used with success.—*Brit. Med. Journ.*, 1884, p. 452.

Methylpyridine Sulphocyanate.

Made by combining quinoline with sulphocyanic acid. Said to be an energetic antiseptic, not caustic, nor irritant.

Metol.

Metol is a salt of monomethylpara-amido-meta-kresol; it is a whitish powder, soluble in water, and forms an almost colourless liquid when in solution. This liquid keeps well in closed bottles without decomposing; it remains, in the presence of alkali carbonates, or sodium sulphite, colourless, and acts as a powerful, clear, and quick-working developer for bromide of silver gelatine dry plates.

Microcidin. *Sodium Naphtholate.*

A white powder obtained by the combination of β -naphthol with caustic soda, consisting in great part of sodium naphtholate, and of naphtholic and phenolic compounds. It is soluble in water, not caustic. Dr. Berloiz states that though inferior to corrosive sublimate and naphthol, it is twenty times stronger than boric acid in its antiseptic power. Ulcers and suppurating wounds cicatrise, and gangrenous surfaces are deodorised after washing with a 3 per cent. solution.

Micromeria. (*See Yerba Buena.*)**Migranin.**

Migranin is a combination of antipyrin, caffeine, and citric acid, and may be described as a double citrate of antipyrin and caffeine. It is a crystalline powder that dissolves in water, forming a neutral solution. Migranin is given in doses of 15 grains dissolved in a tumbler of water as soon as the symptoms of an approaching attack of migraine make themselves felt. The remedy has been employed by Dr. Overlach in a number of severe cases of migraine for the last five years.

Mollinum. *Mollin.*

"A white, inodorous, superfatted soap, containing about 17 per cent. excess of fatty matter."—*Extra Pharm.*, page 254, Martindale.

A good base for ointments, as M. Hydrargyri (33 per cent. mercury) and M. Potass. Iodid. (10 per cent. Pot. Iod.).

Myronin is an ointment base, of soap, carnauba wax, and chenoceti oil.

Monesia. *Chrysophyllum glycyphllum*; *C. Buianheim*. *S. America*. *N. O. Sapotaceae*.

Imported as a vegetable extract. Also the astringent bark, excessively heavy, from this source. [*Monesin*, the acrid principle, much resembles saponin; dose, $\frac{1}{4}$ grain.] *Monesia* is an excitant alterative and astringent in diarrhœa. Dose of fluid extract, 1 fluid drachm.

Monobromacetanilide.

A derivative of acetanilide. For rheumatism and neuralgia; dose, 1 to 5 grains.

Mono-chlor-phenol. $C_6H_4Cl.OH$.

A volatile liquid, antiseptic, not so irritating as tri-chlor-phenol. Prepared by the action of chlorine on phenol at a low temperature. To be inhaled through an apparatus, the drug being dropped in a plug of cotton. In phthisis, the purulent sputa improving in quantity and quality.

Morphia Bromide or Hydrobromate. $C_{17}H_{19}NO_3HBr$.

White needle crystals, or white powder; soluble in 25 parts of water. A good sedative narcotic. Dose, $\frac{1}{10}$ to $\frac{1}{2}$ grain; dose of syrup ($\frac{1}{8}$ grain to fluid drachm), 1 to 4 fluid drachms.

Morphia Meconate. $(C_{17}H_{19}NO_3)_2C_7H_4O_7.5H_2O$.

Natural salt existing in opium. Dose, $\frac{1}{10}$ to $\frac{1}{2}$ grain. Dose of Liq. M. Bimecon. is 10 to 30 drops.

Morphia Phthalate.

In non-crystalline glassy scales. Pure morphine added to hot solution of phthalic acid, very soluble (in 5 parts of water) and permanent. Internally and for hypodermic injection. It contains 77 per cent. of the alkaloid.

Quinine Phthalate (50 per cent. quinine) is also employed.

Morphia Tartrate. $(C_{17}H_{19}NO_3)_2C_4H_6O_6$.

Soluble in water, and used hypodermically. Dose, $\frac{1}{10}$ to $\frac{1}{2}$ grain.

Morruol. *Gaduol*.

An alcoholic extract of cod-liver oil, in which the reputed active constituents are concentrated, one part representing 30 parts of the oil. Prepared by treating oil with spirit, afterwards distilled away, leaving this aromatic, bitter, soft extract. Dose, 3 to 15 minims in capsules.

MORRHUOL—continued.

Lipanine, an emulsion of 5 per cent. of oleic acid in olive oil, has been suggested as a substitute for cod-liver oil. Dose, $\frac{1}{2}$ to 1 ounce.

Morrhaine, an oily alkaloid, is a powerful diuretic and sudorific, aids assimilation and increases the appetite; it may be regarded as the active constituent of cod-liver oil. *Aselline* is the other alkaloid.

Mudar Bark; Madar. *Calotropis gigantea*; *C. procera*. India. N. O. *Asclepiadaceae*.

Pale bark, with starchy interior and well-developed suberous layer. For paralysis, bites of snakes, epilepsy, and some skin diseases. [Active principle *Mudarine*.] Effects resemble ipecacuanha. Dose of powdered bark, 5 to 6 grains twice daily.

Muscarine. $C_5H_{13}NO_2$. The non-crystallisable narcotic alkaloid found in *Agaricus Muscarius*. N. O. *Fungi*.

It causes perspiration, salivation, and purging. The nitrate and sulphate are the salts used.

Muscarine Nitrate is also used.

Act as Pilocarpine. Dose, $\frac{1}{5}$ to $\frac{1}{2}$ grain hypodermically, or $\frac{1}{100}$ grain internally.

Mydrin.

A combination of the two mydriatic alkaloids, Ephedine and Homatropine. A few drops of a 10 per cent. solution causes the pupil of the eye rapidly to enlarge.

Myrcia Acris. Bay Myrtle; Wild Clove. West Indies. N. O. *Myrtaceae*.

The volatile oil from the oval aromatic leaves with spirit is bay rum, and is in the U.S.A. Pharm., 1880.

Myricin. From *Myrica cerifera*, Wax Myrtle. N. America. (*Myrica gale* is indigenous.) N. O. *Myricaceae* (*Amentiferae*—*Babington*).

Bayberry bark is in grey scaly quills, with bitter acrid taste.

Myricin is its powdered extractive. Stimulant astringent in hepatic diseases. Dose, 2 to 4 grains in pill.

Myrtol. Essential Oil of Myrtle. $C_{10}H_{16} + C_{10}H_{18}O$.

A colourless liquid, smelling of the leaves. Reported to be an antiseptic and disinfectant, taken internally for putrescent bronchitis and tuberculosis, in capsules of a few grains each.

Naphthalin. *Naphthalene.* $C_{10}H_8$.

A distillate of coal tar. In brilliant white crystalline plates, with tarry odour and pungent taste. Volatile; scarcely soluble in water, but soluble in hot alcohol and warm fatty oils; melts at $176^{\circ}C$.

THERAPEUTICS. It is a stimulant antiseptic, destroying low animal and vegetable organisms. Internally, dose 3 grains cautiously increased, in an emulsion; principally used in wounds and open ulcers, either powdered or 15 per cent. in lard or oil.

Facilitates expectoration, especially in old people, in doses of 3 grains in syrup every quarter of an hour. Preserves specimens of natural history from insects.

Given in 3-grain doses with benefit in fetid urine, causing disappearance of micrococci.—E. H. Fenwick, *Lancet*, September 24th, 1887.

For diarrhœa and typhoid fever, in doses of 2 to 8 grains, as a powder; add a drop of oil of bergamot: as—

Naphthalin	...	...	...	...	...	30 grains.
Sacch. Alb.	...	...	...	...	...	30 grains.
Oil Bergam.	...	...	...	...	...	1 grain.

Make a powder: divide into ten doses, one to be taken three times a day.—H. Helbing.

Dr. Mirowicz claims for it that it is thoroughly reliable in its anthelmintic properties. He has given it for all kinds of intestinal worms, and obtained prompt results. Tapeworms were removed entire by a single dose of one gramme.

Naphthalin Hydrochlorate.

Crystals, insoluble in water, without colour or odour; dose, 5 to 10 grains.

Naphthalol. (*See Betol.*) **β -Naphthol Carbonate.**

Is in crystals melting at $176^{\circ}C$. Having no irritating action, it seems destined to substitute the free β -naphthol. The decomposition of this preparation takes place in the intestine.

Naphthol Di-iodide.

Iodo-beta-naphthol. Greenish-yellow powder, insoluble in water. An antiseptic, similar to iodoform; useful in psoriasis, and especially in itch. In powder, or ointment of one part to five parts of vaseline or fossiline.

Naphthol or Beta-Naphthol. $C_{10}H_7OH$. *Naphthalin Hydroxyl*.

White shining rhombic tabular crystals, or slightly aromatic, colourless, a product from coal tar. Soluble in spirit and fat, and readily absorbed by the skin. Melts at $251.6^{\circ}C$. Volatilises by heat.

THERAPEUTICS. Is an *external* antiseptic substitute for tar preparations as a parasiticide, in eczema, itch, &c. A lard ointment of 3 to 25 per cent., or an alcoholic solution of 2 to 10 per cent. of Naphthol, with 1 per cent. of eucalyptus oil, is the usual strength, but one of 5 per cent. is almost a specific for prurigo: it can be applied in powder to wounds. Toxic internally. Also a powerful antiseptic and disinfectant, 1 in 1000 of water. In French Supplementary Codex.

Dioxy-naphthalene. $C_{10}H_6(OH)_2$. Is related to Beta-Naphthol as resorcin is to carbolic acid. A still more powerful antiseptic.

Hydronaphthol. From β -naphthol, an atom of hydroxyl replacing one of hydrogen—by some believed to be an impure form of β -naphthol. Inodorous powder, scarcely soluble in water, for ringworm.

Alpha-Naphthol is also a powerful antiseptic.

Naphthol-camphor (beta-naphthol 100 parts, camphor 200 parts) and *Salol-camphor* (salol 300 parts, camphor 200 parts) are good antiseptics for wounds. Powder the substances and warm gently till liquefaction takes place.

Naphtylamin Hydrochlorate. $C_{10}H_7NH_2.HCl$.

Forms a white crystalline powder of a peculiar odour; easily soluble in water, ether, and alcohol. Naphtylamin hydrochlorate is of no use in therapeutics, but it is a remarkably fine test for oxidising agents, such as ferric chlorides, chromic acid, &c., with which it yields blue and finally purple coloured precipitates; also it is a very sensitive test for microscopical researches of lignified cells, which will become apparent by assuming an orange colour.

Narceine. $C_{23}H_{29}NO_9$. *Opium alkaloid. N. O. Papaveraceae.*

White feathery crystals. Innoxious, sedative narcotic. Dose, $\frac{1}{4}$ gr. to 1 gr. The *meconate*, in white powder, is a sedative in hypodermic injections.

Narcotine. $C_{22}H_{23}NO_7$. *Opium alkaloid.*

Small hard white prisms, *not* narcotic, and therefore proposed to be called *Anarcotine* by W. Roberts, *Brit. Med. Journ.*, 1895, vol. ii, p. 405. Possesses antiperiodic powers in intermittent fevers and ague. Dose, 1 to 3 grains. The deodorised Tincture of Opium of the

NARCOTINE—*continued*.

U.S.A. Pharm. (an excellent preparation, about the strength of the B. P. Tinct.) is freed by ether from Narcotine, fat, resin, and the sickening odorous principle; these are dissolved without affecting the morphia.

Scapnia is a 10 per cent. morphia-opium made in New York, deprived of narcotine, thebaine, and papaverine.

Akolethe is a proprietary solution of sedative principles of opium.

Nardus. *Spikenard. N. O. Valerianaceæ.*

Aromatic roots, with the properties of valerian. *Nardus Indica* is probably from *Valeriana Jatamensi* of Bengal, or *Nardostachys Jatamansi*, an Indian perfume and antispasmodic; believed to be the true Sumbul. "Sumbul is a word generically applied to various fragrant drugs."—E. M. Holmes. *Nardus Celtica* is from *Valeriana Celtica*, of Alps and Apennines.

Naregamia Alata. *Western and Southern India. N. O. Meliaceæ.*

Syn.: Pittvel, pittpápra, tinpáni (Mar), Nela-naringu, nala-kanugida (Kan), Nela-naregam (Malay), Trifolio (Goa). The creeping roots and the slender stems attached to them are used. A small glabrous undershrub, with trifoliolate leaves. It is mentioned by Rheede as a remedy in South India for rheumatism and itch. Dymock states that in the Konkan the Hindus use the stems and leaves in decoction with bitters and aromatics as a remedy for biliousness. It has recently been tried in Madras in acute dysentery, and also as an emetic and expectorant, with results similar to those obtained from ipecacuanha, given in equal doses. The root has a pungent aromatic odour. Dose of tincture, 1 in 10, 10 drops.

Ndilo Seeds. *Calophyllum inophyllum. India. N. O. Guttifera.*

Oil (of which the seeds contain 50 per cent.) for itch, and also used for burning. The leaves for ophthalmia.

Neurodin. *Acetyl-para-oryphenylurethane.*



This body occurs as colourless, odourless crystals, slightly soluble in cold water, and dissolving in boiling water to the extent of 1 : 140. Melting-point, 87° C. Neurodin possesses a distinctly marked anti-

NEURODIN—*continued*.

pyretic influence, and also an antineuralgic action. This is proved by the numerous clinical observations made by v. Mering on cases of headache, facial neuralgia, sciatica, &c. The effect of neurodin begins about half an hour after administration. Neurodin is conveniently ordered in powders of 8 to 15 grains each for one dose.

Nickel Bromide. NiBr_2 .

Is recommended in epilepsy by Dr. De Costa. Dose, 5 to 10 grains daily.

Nicotine. From *Nicotiana tabacum*. *Europe*. *N. O. Solanaceæ*.

This alkaloid is a white volatile fluid, with odour of tobacco; soluble in water and spirit. The sulphate is in French Supplementary Codex for sheep washing: the soluble tartrate, in needle crystals containing about 33 per cent. of the alkaloid, has been used.

For tetanus: dose, $\frac{1}{4}$ to $\frac{1}{2}$ minim.

Nitro-glycerine. *Glonoïn*. $\text{C}_3\text{H}_5(\text{NO}_2)_3\text{O}_3$. (*Glycerine is* $\text{C}_3\text{H}_5\text{H}_3\text{O}_3$ or $\text{C}_3\text{H}_8\text{O}_3$.)

Drop doses of a 1 per cent. solution, three times a day, in angina pectoris. It is a stimulant, like alcohol. Tablets containing $\frac{1}{100}$ grain of nitro-glycerine are also employed.

Liquor Trinitrinæ. Solution of Trinitrin.

SYNONYMS.—Liquor Nitro-glycerini; Solution of Nitro-glycerine; Liquor Glonoini; Solution of Glonoïne.

Take of—

Pure Nitro-glycerine 1 part by weight.

Rectified Spirit, sufficient to produce ... 100 fluid parts.

Dissolve. Specific gravity, 0.844.

Dose, $\frac{1}{2}$ to 2 minims.—1890 Add. to B. P.

Nosophen. *Tetra-iodo-phenol-phtaleïn*. $\text{C}_6\text{H}_4\cdot\text{C}_2\text{O}_2(\text{C}_6\text{H}_2\text{I}_2\text{OH})_2$.

Is a greyish-yellow powder, without odour or taste, containing 61.7 per cent. iodine in combination; insoluble in water, slightly soluble in alcohol, more soluble in ether and chloroform. A non-toxic substitute for iodoform. In their studies on the healing of wounds, Professor Zuntz and Dr. R. W. Frank gave Nosophen the preference over all the vulnerary preparations compared, including iodoform, dermatol, euophen, and aristol.

Nutrin.

Nutrin is the name given to a dietetic food representing, according to the manufacturers, the pure nutritious substance of meat. It is a fine brownish-yellow, permanent powder, of a somewhat salty and pleasant meat taste, and of such concentration that one part corresponds to all the nutritious matter contained in more than four parts of muscle beef. The published analysis of this powder gives 83·5 per cent. of albumin, 6·1 per cent. of fat, 4·9 per cent. of the nutritive salts of meat, and 5·5 per cent. of water.

Ænanthe Phellandrium. (*Lamk.*) *Phellandrium aquaticum*. *Water-fennel*; *Water-dropwort*. *Europe*. *N. O. Umbellifere*.

The aromatic small brown fruit, containing about 1 per cent. of volatile oil, are used as carminative to quiet coughs, allay restlessness, and give expectoration. Dose, fluid extract, 5 to 20 minims. In French Codex, 1884.

Oleates of the Metals and Alkaloids.

Epidermic medication is by absorption through the skin, and the true chemical compounds of oleic acid ($C_{18}H_{34}O_2$, a yellowish oily fluid discovered by Chevreul in 1811) and the metals and alkaloids have proved very valuable. Professor Attfield wrote on the oleates in 1862, and Professor John Marshall, in 1872, introduced the fluid oleates in medicine, and Dr. John V. Shoemaker, of Pennsylvania, working with Dr. L. Wolff, of Philadelphia, in 1882, the precipitated oleates.

Oleates by Solution.

These are prepared by slowly dissolving the metallic oxide or alkaloid in oleic acid, without heat: they are solutions of the oleates in an excess of oleic acid (Marshall's formula).

They should be very lightly applied with a brush or the finger. Oleate of Morphia relieves the nerve extremities; useful in all inflammations near the skin, relieving pain in acute rheumatism, neuralgia, threatened abscess, tonsillitis, enlarged glands, and epididymitis. The Oleate of Mercury kills pediculi and their ova, and, of 20 per cent. strength, salivates easily. The principal oleates are of the following strengths:—

OLEATES—continued.

Mercury	...	10 %, 15 %, or 20 %	of oxide is a good way to exhibit the metal. 10 % in ring-worm, as a parasiticide.
Lead	...	normal (29.0)	in eczema, to relieve irritation.
Zinc	...	„ (12.9)	soothing.
Arsenic	...	5 %	caustic in lumps, eczema, &c.
Copper	...	10 %	caustic, stimulating.
Bismuth	...	normal (22.2)	stimulating and soothing.
Iron	...	„ (11.7)	astringent.

Oleates of Aluminium, an astringent dressing for ulcers; Nickel, Sodium, &c., have also been made. Oleate of Mercury and Morphia is usually 10 per cent. of former and 2 per cent. of latter; also 20 per cent. of former and 5 per cent. of latter. Oleates of the stronger alkaloids, Aconitia, Atropia, Strychnine, and Veratrine, are generally 2 per cent.; Oleate of Morphia, usually 5 per cent.; Oleate of Quinine, 5 per cent., 10 per cent., and 25 per cent. have been administered.

Oleates by Precipitation.

Chemically true oleates have been introduced by Dr. Shoemaker, of Pennsylvania, and used by Dr. James Sawyer: obtained by double decomposition of sodium oleate (a solution in 8 parts of water) with solutions of neutral salts, when the oleate of the metal precipitates [the sodium oleate being prepared by the saponification of oleic acid with a solution of sodium hydrate]. The oleates enter readily the minute openings of the skin, and are therefore valuable in skin diseases; but they are not conveyed by the lymphatics into the blood: the *mercury*, especially in mercurous oleate, is, however, absorbed by the system. Of precipitated oleates, the following are employed.

Oleates of Zinc, a pearl-colour powder for excessive sweating. Lead and Copper, thus produced, can be used in the proportion of $1\frac{1}{2}$ drachms to the ounce of fossiline, vaseline, or lard. The washed precipitate of Oleate of Copper, with 4 or 9 parts of lard, &c., gives a 20 or a 10 per cent. of oleate of copper ointment, valuable in ringworm and tinea versicolor; an escharotic in warts and corns, &c., for bleeding eczema.

Oleate of Iron, with equal parts of lard, is a good styptic astringent.

Oleate of Nickel is an astringent caustic to old ulcers, and Oleate of Tin benefits diseased nails.

OLEATES—*continued.*

Normal precipitated Oleates (soft) of Aluminium, strongly astringent in ulcers, eczema, &c. ; Arsenic, soothing and emollient against itching, &c. Bismuth, caustic in lupus, warts, &c. ; Mercury—mercuric oleate is excellent in parasitic diseases, killing all parasites, vegetable and animal, such as ringworm, &c. ; Mercurous Oleate is stronger, and is readily absorbed in the injection treatment of syphilis. Lead (anti-irritant sedative), allaying inflammation, and Silver, are also prepared and used.

Also ointments and powders for dusting, containing each 20 per cent. of the above oleates (5 per cent. of arsenic only) ; also oleates containing of Aconitia, Atropia, Strychnia, and Veratria, 2 per cent. ; Veratria, 10 per cent. ; Quinia, 5 per cent., 10 per cent., and 25 per cent. (of little use) ; Mercury, 10 per cent., and Morphia, 2 per cent. ; Mercury, 20 per cent., and Morphia, 5 per cent.

The above strengths have reference to the percentage of true oleates.

Oleo-cresote.

Combination of beechwood creosote with oleic acid. Straw-coloured oily liquid containing 35 per cent. combined creosote ; same indications as creosote, and said to be borne better in large doses. Dose, $\frac{3}{4}$ to $2\frac{1}{2}$ drachms daily. Also subcutaneously.

Oleum Cadinum. *Oil of Cade ; "Huile de Caide ;" Juniper Tar Oil.*

An empyreumatic oily liquid obtained by the destructive distillation of the woody portions of *Juniperus oxycedrus*, Linn., and other species.

CHARACTERS. A dark reddish-brown viscid liquid, with an empyreumatic odour and an acrid taste. Specific gravity about 0.990. It is soluble in ether and chloroform, and very slightly in water.—1890 Add. to B.P.

Oleum Declinae.

So called because manufactured by the Dee Oil Company. Recommended by Dr. John Roberts of Chester (*Practitioner*, vol. xxxiv, p. 401), and Dr. Simon of Birmingham (*Brit. Med. Journ.*, June 25th, 1887).

A heavy, odourless hydrocarbon oil.

OLEUM DEELINÆ—*continued*.

THERAPEUTICS. Useful in eczema in the following formula :

Olei Deelinæ	...	...	...	...	1 ounce.
Olei Ricini	...	...	...	...	1 ounce.
Olei Olivæ	...	...	...	...	2 ounces.

Orexin. *Phenyldihydroquinazolin*. $H_{12}C_{14}N_2$. *Orexin Hydrochlor.*; *Hydrochloride of Phenylhydrochinazolin*.

A stomachic digestive, toning up the functions of the stomach. The hydro-chloride is a bitter, whitish, crystalline powder, soluble in hot water and alcohol, though Orexin itself is insoluble.

THERAPEUTICS. A dose of 3 to 5 grains gives a feeling of hunger, accompanied with slight irritation of mucous membrane. The following formula has been used :

R Orexin Hydrochlor., 3 grs.
Ext. Gentian.
Pulv. Rad. Althææ, q.s.
F. pil. xx.

Dose, 3 to 5 pills in a cup of beef-tea, once or twice daily, *i. e.* 2 to 4, rising to 7 grains daily.

"The hydrochloric acid of the gastric juice appears about an hour earlier with its use."—Penzoldt. See also *Pharm. Journ.*, May 31st, 1890.

Orphol. See page 47.

Orthin. *Ortho-hydrazine-para-oxybenzoic Acid*.

A derivative of phenyl-hydrazine.

Its hydrochlorate is more stable. Such a powerful antipyretic that its use is dangerous.

Ouabain. $C_{30}H_{46}O_{12}$. *From the Ouabaïo, related to Carissa Schimperii. East Africa.*

A glucoside, from an aqueous extract of the roots, used as an arrow poison by the Somalis. Ouabain is prepared in Europe from seeds of the *Strophanthus* of the Gaboon. In white crystals, slightly bitter, soluble in hot water.

"It acts on respiratory centres, as in asthma and whooping-cough, causing perspiration."—*Brit. Med. Journ.*, April 26th, 1890.

Dose, $\frac{1}{1000}$ grain every three hours. Of the solution of a grain in 1000 minims of distilled water, use one minim in a little water.

Oxysparteine.

An oxidation product of Sparteine. In white needle crystals, alkaline; soluble in water and alcohol. A heart medicine, in doses of $\frac{1}{2}$ grain of the hydrochlorate per diem in hypodermic injections.

Pambotano. *Calliandra Houstoni*. Mexico. N. O. Leguminosæ.

Bark ; a decoction of 3 ounces of bark is taken in a pint of water in the twenty-four hours.

For malarial fevers.

Pancreatin.

A mixture of enzymes or ferments existing in the pancreas, by which the assimilation and digestion of *fat* is effected. Dose of the yellowish amorphous powder, 5 to 20 grains. Scarcely soluble in water ; better mixed with food.

Pancreobiline.

An American proprietary medicine ; a light brown liquid ; dose, 2 tablespoonfuls, two hours after meals.

Pancreopepsine.

A powder made by Freye, of Portland, Maine, U.S.A., as an aid to digestion : dose, $\frac{1}{2}$ drachm in water after meals.

Panax Quinquefolium. *Ginseng*. N. America. N. O. Araliaceæ.

A fusiform, wrinkled, aromatic root, with mealy fracture. Contains sweet amorphous *Panaquilon*, resin, and starch. Stimulant demulcent in doses of $\frac{1}{2}$ to 2 drachms.

Panna-panna. *Aspidium athamanticum*. Uncomo-como. South Africa. N. O. Filices.

The brown rhizome, with black resin cells, is used for tapeworm.

It probably, like *Aspidium filix-mas*, contains fixed oil, non-poisonous crystalline *filicin*, and white amorphous poisonous anthelmintic *filicic acid* (Maisch).

Panopeptone.

A predigested food, made by Fairchild, U.S.A. It is a brown liquid, represented to be peptonized bread and milk, given in spoonful doses several times a day.

Pao-Pereiro. Brazil. N. O. Apocynaceæ.

The bark is a febrifuge, believed to be from *Geissospermum leve* or *G. Vellozii*. The crystalline alkaloid is *Geissospermine* or *Pereirine*, an amorphous grey powder : its hydrochlorate is used in malarial fevers, in doses of 15 grains daily.

Papain, or Papayotin. *From Carica Papaya (which see).*

Several carnivorous plants dissolve animal flesh by their secreting a pepsine-like ferment, such as Papain. It resembles pancreatin, and, unlike pepsine, it dissolves fibrin in the presence of an alkali.

THERAPEUTICS. Used to remove obstinate, hard, horny epidermis, and even living tissues, as in the case of cancer, the membrane of croup, &c. ; 12 grains to 5 grains borax in 2 drachms water, to paint parts in chronic eczema, &c., and in diphtheria. The dry juice of Papaw contains about one-sixth of Papain: the latter should digest 200 times its weight of fibrin.

A solution, for diphtheria, is—

Papayotin	...	...	...	...	...	1 ounce.
Glycerine	...	...	...	...	...	4 ounces.
Water	...	...	...	...	...	4 „

Paint the membranes with a camel's-hair brush.

“Of marked value in syphilitic ulcers of the throat and tongue: in lozenges.”—E. H. Fenwick, *Lancet*, September 24th, 1887.

Papain	...	...	...	...	...	$\frac{1}{8}$ grain.
Cocaine	...	...	...	...	...	$\frac{1}{8}$ „
Potass. Bicarb.	...	...	...	...	...	$\frac{1}{4}$ „

From its effects, Papain is a useful alternative to pepsine in dyspepsia. Dose, 1 to 2 grains, with 5 grains sugar of milk or in an alkaline mixture.

Papaverine. $C_{20}H_{21}NO_4$. *Opium Alkaloid.*

White needle crystals; narcotic. Dose, $\frac{1}{4}$ grain. The hydrochlorate and phosphate are used with the same dose.

Papine.

A fawn-coloured powder, made by Boehringer and Son; a digestive.

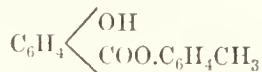
Parachlorophenol.

A crystalline body melting at 33° C., soluble in alcohol and fixed oil, and insoluble in water. 2 per cent. lanolin or vaseline ointment, in lupus and erysipelas as an antiseptic. *Parachlorophenol salicylate* or *Parachlorsalol* is an intestinal antiseptic, like Salol; dose, $\frac{1}{2}$ to 1 drachm per day.

Paracotoine. $C_{19}H_{12}O_6$. *Active principle of Paracoto Bark.*

Pale yellow, shining flakes; tasteless. Soluble in ether and alcohol. Employed in cholera, in hypodermic injection, dissolved in alcohol; or internally in powder or mixture. In doses of 1 to 4 grains several times a day. Is similar to, but less active than, Cotoine.

Para-cresatol. *Salicylate of Para-cresol.*



Acts in a similar manner, as an intestinal antiseptic, to Salol; in rheumatic fever, 1 to 2 drachms daily in divided doses (Prof. Sahli).

Paraform. *Formic Aldehyde (polymeriform).*

White and crystalline, insoluble in water. Like beta-naphthol, it stops the growth of bacilli, as those of typhoid, but is more powerful. Internally it is a non-toxic intestinal antiseptic. Dr. Aronsohn, of Berlin, has treated cases of European cholera in doses of 8 to 10 grains. Its physiological effects are similar to those of calomel.

Paraldehydm. *Paraldehyde. A polymeric form of Aldehyde, C₆H₁₂O₃. (Aldehyde is C₂H₄O.)*

“A product of the polymerisation of Aldehyde by various acids or salts.”—1890 Add. to B. P.

A colourless liquid, crystalline below 50° F., soluble in *cold* water, 1 in 10; of a disagreeable odour and taste.

THERAPEUTICS. It induces sleep, strengthening the heart, without digestive disturbances or headache, and with easy return to consciousness. Used internally (dose, $\frac{1}{2}$ to $1\frac{1}{2}$ fluid drachms in 3 to 4 ounces of water) and hypodermically. Antagonistic to strychnine. It is also strongly diuretic. A glass of cold milk is a good vehicle for a dose of 1 drachm.

Paullinia Sorbilis. (*See Guarana.*)

Pelagin.

An ethereal solution of antipyrin, cocaine, and caffeine. Has been recommended for sea-sickness.

Pelletierine. *Punicine. C₈H₁₅NO. Punica granatum. N. O. Lythraur.*

The alkaloid of Pomegranate root bark; isomeric with Isopelletierine; in minute, shining, white crystals; dose, 3 to 8 grains (Martindale). The tannate is a grey powder, odourless, with astringent taste; a good remedy for tapeworm. Dose, 15 to 20 grains in water, or dissolved in a solution of tartaric acid; later on 1 ounce of castor oil.

Pelletierine Sulphate, Hydrochlorate, and Hydrobromate.

Similar properties, very hygroscopic; dose, 7 to 10 grains, 2 grains for a child. Soluble in water.

PELLETIERINE SULPHATE, ETC.—continued.

The sulphate is generally in a softish, viscid, amorphous form. The crystalline form is by some termed Pseudo-pelletierine, and is of doubtful power.

Pental. *Tri-methyl-ethylene.* $(\text{CH}_3)_2\text{C}.\text{CH}.\text{CH}_3$.

An anæsthetic discovered by von Mering; a colourless liquid, soluble in alcohol; stable and non-irritating, and producing a deep narcosis; very volatile, and requiring a mask apparatus. Recommended for minor operations, as, consisting only of carbon and hydrogen, it has no bad after-effects. It is put up in bottles of 10 grammes—for one operation. Highly inflammable.

Peptenzyme.

An American proprietary, represented to contain the ferment principles of our several digestive organs. A digester of nitrogenous, fatty, and starchy foods. Dose, 1 or 2 tablets before and after meals. In bottles of 110 tablets, or $1\frac{1}{4}$ oz. in powder. Made by Reed and Carnick, of New York.

Pepto-glutine Sublimate. *Mercuric Pepto-glutine Hydrochloride.*

Contains 25 per cent. of mercuric chloride in combination with a kind of semi-peptonised gelatine. It occurs in the form of white lustrous lamellæ or as a hygroscopic powder. Soluble in water, from which it is not thrown down by the ordinary precipitants of corrosive sublimate. This compound has proved successful as an antisyphilitic, the injections being relatively painless.

Dose, $\frac{1}{5}$ grain. Prepare a 1 per cent. solution, and hypodermically inject a Pravaz syringeful.

Peptones.

Artificially digested meats, or substances produced by the action of the acid gastric juice (or pepsine) upon insoluble proteids or albuminoids in *acid* solutions, and of the pancreatic juice in *alkaline* solutions, at the temperature of the body, viz. peptic peptones and pancreatic peptones. Meat, dissolved by acidulated pepsine, is a peptic peptone; filtered, neutralised with sodium bicarbonate, and evaporated to dryness, 2 lbs. of beef should yield $\frac{1}{2}$ lb. dry peptone; if evaporated to syrupy consistence, probably about 1 lb. of brown, rather bitter paste. It is valuable in enemata, or as a substitute for beef tea.

Peptones combine with some metallic salts: we have iron peptone and mercuric peptone; both can be injected subcutaneously; also bismuth peptone, containing about 3 per cent. of soluble oxide.

Peroxide of Hydrogen. H_2O_2 .

THERAPEUTICS. It gives oxygen to the blood, and improves digestion. Solution, 1 to 10 strength; dose, 1 drachm to $\frac{1}{2}$ ounce fluid, *freely* diluted with water. Is also a powerful, penetrating, non-poisonous antiseptic, used internally and externally in an ointment, 1 to 8 of lard. It destroys organised fermentations, with liberation of oxygen; also for surgical dressings, especially for soft chancre and wounds with pus; dress with it several times a day, and apply lint saturated with it.

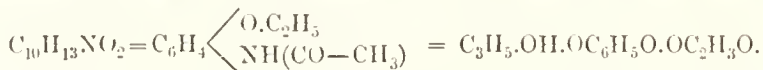
Relieves paroxysms of whooping-cough and dyspnoea of mucopurulent bronchitis, in doses of 1 to 4 fluid drachms, freely diluted. *Ozonic ether* is its solution in ether: in whooping-cough, scarlet fever, and diabetes; dose, $\frac{1}{2}$ to 1 drachm.

FORMULA. Two drachms of 4 per cent. solution in four times as much water, three times a day; also as a spray to the throat or nose.

Hydrogen Dioxide. The U.S. Pharmacopœia of 1890 has introduced a 10-volume or 3 per cent. solution, with a detailed process for preparing it, under the head of *Aqua Hydrogenii Dioxidii*.

Persimmon. (*See Diospyros.*)**Pharbitis Nil.** *Kaladana. India.*

The seed contains a purgative resin, *Pharbitisin*, of which the dose is 2 to 5 grains.

Phenacetinum. *Paracetphenetidin; Phenacetin; Fr. Phénédine.*

“A crystalline substance produced by the action of glacial acetic acid on para-phenetidin, a body obtained from phenol.”

CHARACTERS. “Colourless, tasteless, inodorous, glistening, scaly crystals. Melting-point, 275°F. (135°C.). Sparingly soluble in cold water, more freely in boiling water, and in about sixteen parts of rectified spirit.”—1890, Add. to B. P.

A derivative of coal tar, allied to Acetanilid, introduced as an antipyretic by O. Hinsberg and Prof. Kast. Whitish crystalline powder, odourless and tasteless. Scarcely soluble in water, soluble in alcohol and acetic acid: in doses of 5 to 15 grains.

PHENACETINUM—*continued*.

THERAPEUTICS. A safe antipyretic, reducing temperature, with perspiration, but without collapse, soothing pain (as in headache) and giving sleep. Dose, 4 to 8 grains, or even 15 grains, suspended in thickened fluids or powders.

In typhoid fever and in rheumatism, in 4 doses of 15 grains each in one day.

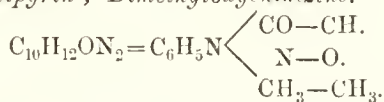
“Excellent in fevers.”—Prof. V. Bamberger, Vienna.

“Probably slower in action than Antipyrin and Antifebrin.”—*Medical News*, August, 1887.

Methyl Phenacetin, an allied compound, is an active narcotic, in small doses.—*Pharm. Journ.*, February 8th, 1890.

Phenatol.

Is a compound reported by Dr. Adolph Welter to be a mixture of acetanilid, sodium bicarbonate, sodium carbonate, sodium sulphate, sodium chloride, and caffeine.

Phenazomum. *Antipyrin ; Dimethyloxychinizine.*

“A crystalline substance obtained from Phenyl-hydrazine.”—1890 Add. to B. P.

This rival to Quinine is produced from coal-tar products, in aniline dye manufactories, by a very complex process. It was first prepared in 1884, by synthesis, by Dr. L. Knott, of Erlangen, and patented by the colour makers, Meister, Lucius and Brüning, of Hoechst, Germany: it is a derivative of a hypothetical base, Chinizin. It has been proposed in France to call it Analgesine.

CHARACTERISTICS. In colourless crystalline plates, or in a white crystalline powder, with a slight aromatic odour and mild taste: soluble in water or alcohol; melts at about 230° F.

THERAPEUTICS. A powerful and efficient antipyretic, lowering the temperature 1° to 5° F. in fevers, acute rheumatic gout, &c. It is eliminated principally in the urine.

Also as an analgesic in controlling pain in nervous, painful affections, as bilious headache, neuralgia, sciatica.

Acute rheumatism. Useful, but doubtful if equal to salicylic acid, as it does not prevent relapses; but it may be given where salicylates are badly supported.

PHENAZONUM—*continued*.

Sea-sickness. Thirty grains daily on the three days preceding the voyage, and on the first three days of the voyage.

Epistaxis. An aqueous solution, 1 in 30, applied on lint as a tampon to the nostrils.

Hay fever. In 15-grain doses, before breakfast. (Dr. A. Bloch, of Havre.)

“In 8-grain doses, twice every hour, potent in bilious headache.”—Dr. J. Ogilvy, *Brit. Med. Journ.*, 1887, p. 123.

“May be given in large doses, beginning with 10 grains, especially in chorea.”—McCall Anderson, *Brit. Med. Journ.*, 1894, p. 1227.

“As an analgesic—two or three doses every four hours—its harmful effects are practically *nil*.”—Gilyard Scarth, *Brit. Med. Journ.*, 1894, p. 1416.

For children it may be dissolved in a little water and mixed with syrup; it may cause a roseola or pinky rash, the so-called Antipyrin rash, which is of no importance.

FORMULA :

Antipyrin	...	...	...	...	...	80 grains.
Syrup Simp.	...	...	...	...	...	1 ounce.
Aqua	...	...	...	...	...	4 ounces.

Two teaspoonfuls for a dose.

Dose, 5 to 20 grains two or three times a day; for children, 3 to 10 grains several times a day.

Incompatible with spirit of nitrous ether, giving a green solution (iso-nitroso-antipyrin) which produces poisonous effects similar to those of free nitrous acid and nitrites.

Aceto-amido-antipyrin is in yellow crystals, soluble in water; a succedaneum of antipyrin in doses of 7 or 8 grains, in cachets or solution.

Phenocoll. $C_6H_6 \begin{matrix} \diagup OC_2H_5 \\ \diagdown NH.OC \end{matrix} (NH_2)CH_2.$

An antipyretic and antirhenmatic.

The hydrochloride (soluble in 16 parts of water) is used in doses of 8 to 15 grains in water; up to 70 grains in one day. It reduces pain in the swollen joints of rheumatism.

Phenol-phthalein. $C_6H_4 \begin{matrix} \diagup CO-C_6H_4-OH. \\ \diagdown CO-C_6H_4-OH. \end{matrix}$

A white, crystalline powder, odourless, easily soluble in alcohol.

PHENOL-PHTHALEIN—*continued*.

It is not employed in medicine. Phenol-phthalein is a good indicator for alkalis for analytical purposes: traces of alkali are detected by a red colour.

Phenopyrin.

From equal parts of phenol and antipyrin. Colourless, oily liquid, insoluble in cold water.

Phenosalyl.

At Pasteur's Institute, Paris, Dr. de Christmas has been engaged in the study of compound antiseptics—that is, mixtures of several bactericides, and amongst others “Phenosalyl,” which has the following composition:—Carbolic acid, 90 parts; salicylic acid, 10 parts; lactic acid, 20 parts; menthol, 1 part. The three acids are heated up to the point of liquefaction, when the menthol is added. The mixture is reported to be soluble in glycerine, and also soluble in water to the extent of 4 per cent.

Phenosuccin and Sodium Phenosuccinate.

These are said to possess analgesic and antipyretic properties. Phenosuccin is produced by the action of succinic acid upon para-amidophenol; it forms small colourless needles, which are soluble in 83 parts of boiling water, and melt at 155° C. (311° F.). The second compound is the sodium salt of anthoxyphenyl-succinamic acid, and is obtained on heating succinamine with sodium hydroxide.

Phenyl-hydrazine. $\text{N}_2\text{H}_3\cdot\text{C}_6\text{H}_5$.

Test for sugar in urine.

Dissolve 1 gramme with $1\frac{1}{2}$ grammes acetate of sodium in 165 m. water; boil with five times the quantity of urine for half an hour; if sugar be present, micro-crystals of yellow needles will appear.

Phenyl-nrethane. (*See Euphorin.*)**Phlorizin, or Phloridzin.** $\text{C}_{21}\text{H}_{24}\text{O}_{10}\cdot 2\text{H}_2\text{O}$.

Bitter glucoside, found in the root-bark of the apple, pear, cherry, &c. It crystallises in white silky needles; soluble in hot water and alcohol. Anti-intermittent, like quinine. Dose, 10 to 15 grains. From this principle, the root-bark of *Pyrus malus* is a tonic febrifuge. Dose of fluid extract, $\frac{1}{4}$ to 1 ounce in the day.

Phloroglucin. $\text{C}_6\text{H}_3(\text{OH})_3$.

A crystalline, yellow powder, soluble in hot water. Used as a decalcifiant, in a solution, 1 part in 100 of hot water, and 10 of hydrochloric acid, adding 200 parts of alcohol.

Phospho-albumen. *An American proprietary (Dioleylecithin).*

An amber-reddish, brown, syrupy liquid, the principal ingredient of which is opium. An anodyne sedative, given in doses of a teaspoonful to a dessert-spoonful.

Physalis Alkekengi. *Winter Cherry. South Europe. N. O. Solanaceæ.*

The berries are bitter from the presence of *physalin*, the active glucoside. Diuretic febrifuge, used in gout. In French Codex, 1884. Dose of tincture (1 in 4), 1 to 2 drachms.

Physostigma Venenosum. *Calabar Bean. West Coast of Africa. N. O. Leguminosæ.*

Reddish-brown, smooth, subreniform beans, about one inch long, the arched side marked by a broad furrow, down which runs the raphe as a long raised line. In tetanus and chorea. Dose of extract, $\frac{1}{8}$ to $\frac{1}{4}$ grain every hour. The ordeal poison of Calabar. The round Cali nut, probably a species of *Dioclea*, is a substitution.

Physostigmine, or Eserine. $C_{30}H_{21}N_3O_4$ (or $C_{15}H_{21}N_3O_2$ —*Dragendorff*).
Contained in the embryo of the Calabar Bean.

This alkaloid is now obtained in a crystalline powder, turning red on exposure, soluble in water.

Eseridine is another alkaloid, white crystalline powder, with similar but weaker qualities, causing diarrhœa. Also tetanic *Calabarine* and innocuous *Physosterin*.

Physostigmine Salicylate.

Colourless, shining, needle-shaped crystals, soluble in warm water and absolute alcohol. In Pharm. Germ. A solution of 1 per cent. works well in contracting the pupil of the eye. Dose, $\frac{1}{100}$ grain, very cautiously increased.

Physostigmine Sulphate.

Yellowish powder, soluble in water. Contracts pupil of eye, acting in the opposite way to atropine and hyoscyamine. Dose, $\frac{1}{100}$ to $\frac{1}{50}$ grain. The Hydrochlorate, Nitrate, and Tartrate are used also in similar doses.

Phytolacca Decandra. *Poke Root; Garget Root. N. America. N. O. Phytolaccææ.*

Fleshy conical root, and dark purple, sweet berries; a cleansing alterative. Reported to have a specific effect on thyroid and parotid glands of the throat. It has a reputation in the United States in chronic rheumatism. Dose of fluid extract, 10 to 30 minims. *Phytolaccin* is an hepatic stimulant; dose, $\frac{1}{2}$ to 2 grains.

Phytolacca Dioica. *Brazils, Mexico, and Algeria. N. O. Phytolaccaceæ.*

Fleshy, greenish clusters of sweet edible berries; little used.

Phytoline. *An American speciality.*

A liquid prepared from the active principle of the berries of *Phytolacca decandra*. For obesity, fatty degeneration of the heart, rheumatism, &c. In 10-minim doses.

Pichi. *Fabiana imbricata. Peru, Chili. N. O. Solanaceæ.*

CHARACTERISTICS. A woody shrub growing on rocky hill-tops, with plume-like sprays, the small densely crowded leaves much resembling those of a conifer. The branches and leafy branchlets are resinous, with an aromatic odour and taste.

It contains an essential oil, resin, a fluorescent crystallising substance, and a bitter alkaloid, "Fabianine."

THERAPEUTICS. A diuretic in inflammation of bladder and catarrh of the urinary tract. Dose: fluid extract, $\frac{1}{2}$ to 1 drachm; infusion, a wineglassful.

"Of undoubted value in lithiasis and renal stone; less in chronic cystitis."—E. H. Fenwick, *Lancet*, September 26th, 1887.

"In cystitis, Dr. Wyman gave it in 15-drop doses in water every three hours for twenty-four hours, with rapid diminution of pain, mucus, and pus."—*Therapeutic Gazette*, 1886, p. 221.

FORMULA in lithuria :

Fl. Ext. Piché	...	...	...	...	1 ounce.
Potass. Nit.	...	...	...	...	1 drachm.
Elixir Simp.	...	...	...	...	3 ounces.

M. A teaspoonful every three hours.

Pichurin Beans. *Nectandra Puchury. Sassafras Nuts. S. America. N. O. Lauraceæ.*

Aromatic from presence of a volatile oil; these cotyledons are used to flavour chocolate, &c.

Picrol. *Di-iodo-resorcin-mono-sulphonic Acid.*

An antiseptic containing 52 per cent. of iodine.

Picrotoxin. $C_{12}H_{14}O$, though formula uncertain. From the seeds of *Anamirta paniculata* (*Menispermum cocculus*; *Cocculus indicus*). *N. O. Menispermaceæ.*

White, shining, needle-shaped crystals, neutral, odourless, very bitter. Soluble in hot water and alcohol. For epilepsy, night sweating, and spinal irritation. Dose, $\frac{1}{150}$ to $\frac{1}{50}$ grain.

In 1890 Add. to B. P.

Pilocarpine. $C_{23}H_{34}N_4O$ (or $C_{11}H_{16}N_2O_2$). *The active principle of Jaborandi.*

White liquid alkaloid, of which the crystalline salts are used. It has been produced artificially from a derivative of Pyridin, being the second alkaloid (the first was conia) built up by synthesis. Is antagonistic to atropine.

THERAPEUTICS. A powerful sudorific in jaundice, &c. Hypodermically inject 10 to 20 minims of a 2 per cent. solution, or $\frac{1}{20}$ grain three times a day. In French Codex. There are three other alkaloids—jaborine, pilocarpidine, and jaboridine (*Pharm. Journal*, xvi, p. 106).

The *Nitrate* has been used for pleurisy and night sweating. Dose, $\frac{1}{4}$ grain hypodermically, in water; or in pill.

The *Hydrochlorate* is in minute white deliquescent crystals. Sialogogue. Dose as Nitrate. In Pharm. Germ., 1882.

Pinus Canadensis. *Abies canadensis.* *Hemlock Spruce.* *N. America.*
N. O. Conifere.

The Hemlock Spruce is one of the great timber trees of N. America.

CHARACTERISTICS. The bark is both flat and in quill, with terebinthinate odour. Between the thin, dark (often absent) greyish outer, and the thick, pale brown inner bark is a purple layer, well developed in old, slab-like flat bark.

THERAPEUTICS. The inner bark is a strong astringent, and the fluid extract, diluted, is used as an injection in leucorrhœa. Dose, fluid extract, 1 to 2 fluid drachms. Its volatile oil acts on the uterus like savine.

Pinus Pumilio. *Mountain or Mugho Pine.* *South-east Europe.*

The source of the once prized Hungarian balsam. Its essential oil, Pinol, by some called Pumiline, is the potent agent in the German "pine cure;" internally, 5 minims on sugar, and externally on flannel as a counter-irritant.

Pinus pinaster gives in Southern France the dried resin called "Galipot" of the Codex. *Pinus larix*, in Tyrol, gives Venice turpentine; *P. balsamea*, in N. America, Canada balsam; *P. picea*, in Europe, Strasburg turpentine.

Pinus Sylvestris. *Scotch Pine; North Europe.*

Fir-wool oil and extract are made from its leaves, for rheumatism. Fir-wool is a fibrous substance, also prepared from the leaves, and used for wrapping the affected parts. Dose of oil, internally, 15 to

PINUS SYLVESTRIS—*continued*.

20 drops. The French use the leaf-buds, called “Bourgeons de sapin.” One of the sources of turpentine and resin.

Piperazine.

An organic base in small crystals without colour, but with saline taste, soluble in about four parts of water. A powerful, non-irritant solvent of uric acid and urates.

It has been stated that, as the result of a series of experiments, Piperazine is a substance which, in strengths of 1 per cent. to 7.5 per cent. in normal urine, at the temperature of 39° C., has the property of dissolving uric acid calculi, and of disintegrating and rendering soft and pulpy the undissolved portion.

Lithio-Piperazine. This has been introduced by L. C. Marquardt, combining the diuretic effects of lithia with the solvent action of piperazine on uric acid, thus ensuring the elimination of the dissolved urates from the organism. It is a white, granular, soluble powder, administered in pellets of 15 grains.

Piperine. $C_{17}H_{19}NO_3$. *From Piper nigrum. N. O. Piperaceæ.*

Crystalline, in white prisms, turning yellow; insoluble in water; nearly tasteless, as it is not the pungent principle. Febrifuge in doses of 2 to 5 grains. Its formula is isomeric with that of morphia. In U.S.A. Pharmacopœia.

Piperonal. *Piperonylic Aldehyde.* $C_6H_6O_3$.

Small scaly white crystals, with an odour like coumarine, insoluble in cold, but soluble in warm water, alcohol, and ether. An antitoxic antiseptic, which can be taken internally in doses of half a drachm.

Piscidia Erythrina and Piscidin. (*See Dogwood.*)

Pitouri, or Pituri. *Duboisia Hopwoodii. Queensland. N. O. Solanaceæ.*

A stimulating semi-poisonous narcotic. Leaves are chewed by aborigines, a large dose rendering them furious. Leaves smoked have relieved asthma. The active principle seems to be nicotine.

Pixol.

Is the name given by Dr. Raptchevski to a “cheap disinfectant” prepared by dissolving 1 part of green soft soap in 3 parts of tar, and adding slowly a solution of caustic alkali of definite strength. This gives a syrupy liquid which is diluted down to 1 in 19, thus furnishing a 5 per cent. solution. It is recommended for the general disinfection of linen and hands. Double this strength is used for disinfecting dejecta.

Plantago Major and P. Lanceolata. *Plantain. Europe. N. O. Plantaginaceæ.*

Of this well-known plant, containing a bitter principle, pectin, and oxalates, the leaves have been used as hæmostatic and the seeds as demulcents.

Podophyllin. *Resin (4 or 5 per cent.) of Podophyllum.*

A powerful stimulant to the liver, and also an intestinal aperient; useful in bilious headaches. Dose, $\frac{1}{4}$ to 1 grain. If pure B. P. of a pale drab; generally prepared in commerce by the alum process, of various shades of greenish yellow; the yellow colour is considered due to the presence of berberine; that portion of the resin insoluble in ether is reported to have no purgative effect.

Podophyllotoxin. $C_{23}H_{24}O_9$. *The active principle of Podophyllum.*

White, crystallisable, and bitter; it is Picropodophyllin in combination with Picropodophyllic Acid, and is the purgative principle of Podophyllin. White amorphous powder, insoluble in water, but soluble in alcohol and ether.

THERAPEUTICS. As it does not interfere with the digestive organs, it does not produce the disagreeable after effects of Podophyllin. In hypodermic injections or in pills, or dissolved in rectified spirit. Dose for children, $\frac{1}{100}$ grain; dose for adults, $\frac{1}{20}$ to $\frac{1}{8}$ grain. A purgative in atonic constipation. *Picropodophyllin* is the active, very bitter, crystalline, neutral principle.

Podophyllum Peltatum. *Mandrake or May Apple Root. N. America. N. O. Berberidaceæ.*

Long-jointed, scarred rhizome and brittle rootlets. An hepatic alterative. Tincture is 1 in 8. Dose fluid extract, $\frac{1}{2}$ to 1 fluid drachm. In U.S.A. and French Pharm.

P. emodi (Wallich), from Himalayas. This cylindrical rhizome contains resin like *P. peltatum*, but double the amount, and this resin is richer in Podophyllotoxin.

Polyporus (Boletus) Fomentarius. *Surgeon's Agaric. Europe. N. O. Fungi.*

Grows on beech and oak. In brown, velvet-like pieces, used to stop bleeding. Impregnated with nitre it was once used as *tinder* or touchwood.

Polyporus Officinalis. (*See Agaric.*)

Polysolve. *Solvin*; *Phenol-sulphoricinate*.

A mixture of 1 part phenol with 4 parts sodium sulphoricinate. Recommended for diphtheria.

Pongamia Glabra. *India. N. O. Leguminosae.*

Kurung or Pongamia oil, deep yellow, solid below 60° F., is used in India for skin diseases and praised by Dr. Dymock in pityriasis.

Potassium Cantharidate.

Introduced by Liebreich for tuberculosis; dose is $\frac{1}{320}$ to $\frac{1}{160}$ grain; a solution is made of which one cubic centimetre contains $\frac{1}{320}$ grain.

Potassium Cobaltonitrite.

Yellow crystalline powder, fairly soluble in water. Used like nitrites; it lessens the dyspnoea of asthma. Dose, $\frac{1}{2}$ grain in pill every three hours.

Potassium Dithiocarbonate.

Tommasoli and Vicini have used this salt with success in various forms of skin disease as ointment, and also in water solution containing as much as 5 per cent. An orange-red, crystalline, and deliquescent powder, readily soluble in water, slightly in alcohol; prepared by the action of carbon bisulphide upon caustic potash solution.

Potassium Permanganate. $K_2Mn_2O_8$.

Purple-black needle crystals, forming a crimson solution in water.

THERAPEUTICS. In solution, 10 grains to 1 ounce is a disinfectant, re-oxygenating putrid organic matter, and destroying low animal and vegetable organisms. Recently used in amenorrhœa, in doses of 1 or 2 grains three times a day, a few days before the expected period. According to Ringer and Murrell, to be used not in solution, but in pills of above strength, excluding in their manufacture organic substances. Also as an injection for blennorrhœa; $\frac{1}{2}$ grain to 1 ounce water.

Prunus Virginiana. *P. serotina. Wild Cherry. N. America. N. O. Rosaceae.*

Pale reddish-brown inner bark, easily breaking, with part of adherent outer bark, collected in autumn.

THERAPEUTICS. Sedative to nervous system and bronchial tubes, and stimulative to digestion; an antispasmodic tonic; it improves the appetite and palliates the cough. Dose of fluid extract, 30 to 60

PRUNUS VIRGINIANA—continued.

minims; of tincture, $\frac{1}{2}$ to 2 drachms. *Prunin*.—Powdered brown extractive or concentration; dose, 1 to 4 grains.

Pseudo-hyosecyamine. $C_{17}H_{23}NO_3$.

This is the third alkaloid that has been found in *Duboisia myoporioides*. Discovered in 1892; small yellow needles, soluble in alcohol and chloroform, sparingly soluble in water; has an acrid, bitter taste. Employed as a sedative in doses of $\frac{1}{100}$ grain.

Pulmonin.

Is an extract from fresh calves' lungs, recommended in pulmonary affections. It is administered in combination with guaiacol carbonate, in tablets of 0.25 gramme each, of which 5 to 10 are taken daily.

Pulsatilla. *Anemone pulsatilla*. *Pasque-flower*. *Indigenous*. *N. O. Ranunculaceæ*.

In amenorrhœa, leucorrhœa, bronchitis, &c. Dose of tincture (1 in 10 proof spirit), 3 to 10 min.; dose of fluid extract, 1 to 5 min.

The Pulsatilla of the homœopaths is *A. pratensis*; that of the U.S.A., *A. pulsatilla* and *A. patens*, var. *multilicaria*.

Pumpkin. *Cucurbita maxima* and *Cucurbita pepo*. *N. O. Cucurbitaceæ*.

The former is probably a variety of *C. pepo*, a species inhabiting the Levant. The active tænicidal principle is the resinoid in the outer portion of the endosperm of the seed. For tapeworm: dose, 4 ounces of seeds pounded so as to make, with water, an emulsion of 1 pint; to be drunk in four portions on an empty stomach, preceded by an aperient.

The seeds of melon (*Cucumis melo*), cucumber (*Cucumis sativus*), and water-melon (*Cucumis citrellus*), are all anthelmintic in doses of 2 ounces; they contain a fixed oil, proteids, myosin, and vitellin.

Pyoktanin.

An aniline dye, destroying bacteria in living organisms, its name signifying "pus-destroyer."

"A mixture of several methyl-violets."—Liebreich.

THERAPEUTICS. It is non-poisonous, without arsenic, inodorous, and disinfects septic wounds. Used of a blue colour for surgical and gynecological, and of a yellow for ophthalmic cases. Also as a dusting powder, of 2 per cent. with tale, as a solution in water of 1 per cent. strength, and in ointments of 1 and of 2 per cent. strengths, in pencils and surgical dressings (1 per cent.), gauze, wadding, and silk, both blue and yellow.

PYOKTANIN—*continued*.

Anthrarobin is a yellow powder, soluble in spirit. In skin diseases, 10 per cent. ointment or tincture. See page 33.

Apyonin, a substance of the methyl-violet class; an antiseptic yellow crystalline powder, slightly soluble in water, soluble in alcohol; made by Petit, of Paris.

Methylene Blue. An aniline dye, for neuralgia. See page 128.

Pyrantin.

This is an antipyretic and antirheumatic. It forms colourless needle-shaped crystals insoluble in cold but slightly soluble in boiling water, and fusing at 155° , and is obtained by heating a mixture of phenacetin and succinic acid and extracting the fused product with alcohol.

Pyretine.

Is an antipyretic and analgesic. Dr. Adolph Welter reports that it is a mixture of acetanilid, caffeine, calcium carbonate, and sodium bicarbonate—58 per cent. of the mixture being acetanilid and 7 per cent. caffeine.

Pyridin. C_5H_5N .

A clear, colourless, volatile fluid, prepared from Dippel's oil, strongly disagreeable in odour and taste; soluble in water and alcohol. S. g. .980; boiling at 242° F.

THERAPEUTICS. For asthma 1 drachm is poured on a plate, and inhaled for 15 minutes. A solution, 1 in 300, has been used once a day for gonorrhœa. Its sulphate has been similarly employed. A strong heart-excitant in doses of 5 drops in water.

Pyrodin. *Hydracetin Acetphenylhydrazin*.

An antipyretic, the active ingredient of which is Acetylphenylhydrazine, or $C_6H_5 \cdot NH_2 \cdot C_2H_3O$.

It is an aniline product akin to "Antithermin," and is a colourless crystalline powder, not very soluble in cold water.

THERAPEUTICS. It reduces temperature, which it effects quickly and permanently, producing great perspiration. But its action is so strongly marked, that only one dose should be given in twelve hours; 2 grains for a child and 5 grains for an adult ought not to be exceeded; its use requires great caution, from its toxic effects in the blood. It has been used in powder or tablets, in pneumonia, typhus, and scarlet fever.

Pyrozone.

Is the name given to a concentrated solution of hydrogen dioxide in ether. It professes to contain about 50 per cent. of the dioxide, and to be a potent, efficient oxidiser, for external use only.

Quassin. $C_{32}H_{40}O_{10}$. *N. O. Simarubæ.*

From Quassia wood; in slender, colourless, iridescent needle crystals; soluble in water, alcohol, and acetic acid. A bitter tonic febrifuge. Dose, $\frac{1}{20}$ to $\frac{1}{4}$ grain. In French Codex Sup.

Quebracho, or Q. Blanco. *Aspidosperma Quebracho. Argentine Republic.*
N. O. Apocynaceæ.

Large pale brown pieces, with thick, greyish, furrowed, corky layer. Contains six alkaloids, Aspidospermine, Quebrachine, &c. [Quebracho Colorado is *Loxopterygium Lorentzii*, *N. O. Anacardiaceæ*. The wood is used by French tanners; it is essentially different from true Quebracho.]

THERAPEUTICS. In pulmonary disease it stimulates; in dyspnœa it is an antipyretic. Dose, fluid extract, 1 drachm; tincture (1 in 5 proof spirit), $\frac{1}{2}$ to 2 drachms.

Quinalgen. *Benzalgen; Ortho-oxy-ethyoxy-ana-mono-benzoyl-amido-quinoline.*

Colourless, tasteless crystals or powder, soluble in acids. Practically insoluble in water and alcohol. Analgesic (migraine, gout, rheumatism, &c.). Dose, 5 to 15 grains three to four times daily.

Quinine Anisate. $(C_{20}H_{24}N_2O_2)_2 \cdot C_{10}H_{12}O + 2H_2O$.

Quinine Antimoniate (chininum antimonicum), *Quinine Cinnamylate* (chininum cinnamylicum), *Quinine Picrate*. These are sometimes used in medicinal practice.

Quinine Hydroferrocyanate. *Chininum hydroferrocyanatum.* $C_{20}H_{21}N_2O_2 \cdot H_4FeCy_6 + 3H_2O$.

Is occasionally medicinally administered in doses of 0.1 to 0.3 gramme.

Quinine and Iron Chloride. *Chininum ferrichloratum.*

This compound, first proposed by Dr. Keresch, is in form of dark brown shining scales, or a reddish-brown hygroscopic powder, of a bitter, astringent taste, soluble in water and alcohol.

Quinine Arseniate.

White needle crystals, containing about 30 per cent. of arsenic acid. In malaria, in pills containing $\frac{1}{4}$ grain each.

Quinine Bibromide. *Q. Bihydrobromate; Neutral Q. Bromide.*
 $C_{20}H_{24}N_2O_2 \cdot 2HB \cdot 3H_2O$.

Soluble in 7 parts of water; it generally does not produce headache. 1 to 3 grains.

Quinine Bisulphate. *Neutral or Acid Sulphate of Quinine; Soluble Quinine.* $C_{20}H_{24}N_2O_2 \cdot SO_4H_2 \cdot H_2O$.

In white needle prisms, soluble in 10 parts of water. It is a dry crystalline powder, that can be given in powder, as *soluble* pills, or in a moderate amount of water without acid. $1\frac{1}{4}$ grains represents the same amount of alkaloid as 1 grain of ordinary sulphate. In U.S.A. Pharm.

Quinine Bromide or Bromo-hydrate.

Soluble in alcohol and water (in 60 parts of cold water). It offers a combination of the properties of quinine and bromine. In pills of $1\frac{1}{2}$ grains up to 6 to 10 grains a day. It has arrested malaria, and is hypnotic with the effects of quinine. Gubler, of Paris, has given $1\frac{1}{2}$ grains in a hypodermic injection, of the strength of 1 to 10 in water slightly alcoholised. The two bromides are in French Codex. *Quinine Bromate* is a different salt.

Quinine Dihydrochlorate has been recommended for hypodermic injections.

Quinine Chlorhydrosulphate.

According to Grimaux and Laborde, an acid salt of the composition $(C_{20}H_{24}N_2O_2)_2 \cdot 2HCl \cdot H_2SO_4 + 3H_2O$, very easily soluble in its own weight of water, and containing 74.2 per cent. of quinine. Same doses as the sulphate: it is also used for hypodermic injections. A similar salt, the Chlorhydrophosphate of Quinine, has also been made.

Quinine Fluoride.

Recommended for enlarged spleen, especially of malarial origin; also for rickets and mal-nutrition of the osseous system. Dose, 1 to 2 grains, in powder or pill.

Quinine Iodide.

For chronic rheumatism. The St. Bartholomew's formula is a fluid mixture of Quinine, 2 grains, Pot. Iodid., 5 grains. Dose, 1 to 4 grains. The acid Iodide and Iodate are also used in same doses.

Quinine Lactate. $C_{20}H_{24}N_2O_3 \cdot C_3H_5O_3$.

In white anhydrous prismatic needles, soluble in 3 parts of cold water. 100 parts contain 78.26 of the alkaloid. Valuable as a tonic in weak digestion, from its solubility. Similar doses to the ordinary sulphate. In French Codex, 1884.

Quinine Phospho-muriate.

Is a double salt of quinine with phosphoric acid and hydrochloric acid. This salt is probably combined like quinine hydrochlorosulphate. It is soluble in water.

Quinine Salicylate.

This and Salicylate of Cinchonine are used in neuralgia and rheumatic gout. Scarcely soluble in water, but soluble in alcohol. Dose, 1 to 3 grains every six hours.

Formula in Influenza :

Quinine Salicylate ...	...	...	...	...	15 grains.
Phenacetin ...	...	...	...	...	23 ..
Powdered camphor	...	...	...	...	3 ..
Antim. Sulph. B.P.	...	...	...	...	1½ ..

Divide into 10 parts and dispense in cachets—four or more daily according to circumstances.

Quinine Sulphocarbolate. *Often prescribed as Carbolate.*

White powder, fairly soluble in alcohol. Formed by mixing, with heat, pure carbolic acid and quinine sulphate in solution, when the salt precipitates. Dose, 1 to 5 grains.

Quinine Tannate.

Amorphous white powder, containing 20 to 21 per cent. of the alkaloid. Has been recommended as tasteless, but is nearly valueless from its insolubility in the stomach. Dose, 10 to 20 grains.

Quinoidine Borate.

An amorphous yellow powder, soluble in three parts of cold water. Antiseptic, and believed to be efficacious in fevers, agues, &c.

Reducine.

Is a new photographic developer of rapid and energetic action. For use, 5 grammes of Reducine and 50 grammes of sodium sulphite are dissolved in 1 litre of water mixed with 12 drops of sulphuric acid.

Resol.

An emulsion of 10 parts of tar, 2 of caustic potash, and 2 of methyl alcohol; very similar to creolin. A 3 per cent. solution (in water) of Resol acts as a disinfectant and antiseptic, and as a germicide to many species of bacteria.

Resorbin.

An ointment base prepared from almond oil and wax, by emulsification with water, adding a little gelatine and soap. This ointment, and with it the medicaments it may contain, is said to be very quickly absorbed by the skin.

Resorcin. $C_6H_6O_2 = C_6H_4(OH)_2$. *Meta-dihydroxyl-benzol*.

Named because at first produced from a gum-resin (Galbanum), and isomeric with *Orcin* (from Archil). *Meta-dihydroxyl-benzol* was built up by Korner from a benzol nucleus. A neutral crystalline body, soluble in alcohol, ether, and water; colourless or yellow; melts at 244.4° F. A weaker external antiseptic than carbolic acid in ointment. In Germ. Pharm., U.S. Pharm., and French Codex Sup.

THERAPEUTICS. Dose, internally, antifermentative and antifebrile, 7 to 10 grains in solution; and for children, 1 to 5 grains in 2 ounces of some bitter infusion; externally in ointments. In solution, as a spray, 2 per cent. solution in water, is useful in diphtheria. 1 per cent. solution, applied to wounds, has a curative antiseptic influence.

To be kept in a dark place.

FORMULA for external use :

Resorcin	...	...	...	...	...	...	3 grains.
Glycerine	...	...	...	...	...	...	30 "
Water	...	...	...	...	...	...	120 "

Resorcinol.

Obtained by fusing a mixture of resorcin and iodoform. An insoluble brown amorphous powder, smelling of iodine; an antiseptic external medicine aiding cicatrization. Applied to wounds, by itself or mixed with starch, or in an ointment of lard of a 10 per cent. strength.

Resorcin-phthalein. *Fluorescein*.

A red powder, soluble in alcohol, insoluble in water unless alkaline. Solution contains 10 grains to ounce of water, with 15 grains of Sodium bicarb. It colours green any part of the cornea of the eye that has lost its epithelium, and thus shows the spot of disease or presence of a foreign body.

Retinol. *Resinol.*

Retinol was discovered as far back as 1838. A liquid hydrocarbon, from destructive distillation of resin. A fatty liquid; it has been used as a good solvent for such agents as naphthol, camphor, and salol, bals. peru, and ol. cadinæ. Not soluble in water. It is a good antiseptic, and is not irritating; it oxidises slowly, and its keeping properties are thus of value. Phosphorus dissolved in it keeps well. It is now used in skin affections and employed in capsules for blennorrhœa.

Rhamnus Frangula. *Black Alder, or Buckthorn. Indigenous. N. O. Rhamnaceæ.*

Bark, collected at least one year before being used, and the young in preference to the old bark. Thin, curled-up quills, with reddish interior; contains the yellow glucosides Frangalin and Emodin. Tonic laxative, without griping. Dose of fluid extract, 1 drachm to $\frac{1}{2}$ ounce.

Rhamnus Purshiana. (*See Cascara Sagrada.*)**Rhinalgin.**

A mixture of alummol, menthol, valerian oil, and cacao butter in suppository form. Coryza remedy.

Rhus Aromatica. *Sweet or Fragrant Sumach. N. America. N. O. Anacardiaceæ.*

CHARACTERISTICS. The shrub producing the root-bark from which a fluid extract is made exhales an aromatic odour, from which circumstance its name is derived. Its bark contains volatile and fixed oils, resin, wax, butyric acid, and tannin. An innocent plant of this order.

THERAPEUTICS. Its principal therapeutical action is that of a tonic upon the urinary organs, having been found beneficial in diabetes, incontinence of urine, and enuresis. Dose of fluid extract, 1 drachm several times a day. It has been used in bed-wetting of children, in doses of 5 to 15 drops, three times a day, of the fluid extract.

Rhus Glabra. *Sumach. N. America.*

The round, crimson, hairy, drupaceous fruit and bark. Astringent antiseptic tonic. In dysentery and serofula. Dose of fluid

Rhus GLABRA—*continued*.

extract, 1 to 2 fluid drachms. An infusion of the inner root-bark is valuable in the sore mouth attending salivation. The fruit makes a refrigerant gargle.

Rhus Toxicodendron. *Poison Oak, or Poison Ivy. N. America.*

Fresh leaves; they contain an acrid juice.

THERAPEUTICS. The tincture (1 in 8 *dried* leaves), dose 1 to 5 minims, has been used in America for paralysis, and the fluid extract in nocturnal incontinence. In muscular rheumatism, drop doses of concentrated tincture (1 of *fresh* leaves to 2 of rect. spirit). Dose of fluid extract, 10 to 60 minims.

Rhus Vernicifera. *Japan, &c.*

Its poisonous sap produces the varnish on the renowned lacquer-work of Japan. [The fruit of *Rhus succedanea* and other species gives Japan wax; *Rhus semialata* bears the curious-shaped Chinese galls; the wood and powdered leaves of *Rhus continus* and *Rhus coriaria*, in Europe, give sumach for dyers.]

Rubidium and Ammonium Bromide. $\text{RbBr} + 3(\text{NH}_4)\text{Br}$.

White crystalline powder, soluble in water; it contains 34 parts in 100 of rubidium bromide, white or yellowish white, without odour, and with a saline, sharp taste. Antispasmodic, and valuable as a change from the alkaline bromides. Used with success for epilepsy. Dose, $\frac{1}{2}$ to 2 drachms daily.

Cæsium, Rubidium, and Ammonium Bromide; also Gold and Potassium Bromide, are similarly used.

Rubidium Iodide.

From solutions of barium iodide and rubidium sulphate; in white, odourless, soluble crystals, with little taste. In syphilis, &c., instead of potassium iodide, in same doses, as it has frequently been found to be better supported by patients.

Rubrol.

This consists of a solution of boracic acid, thymol, and some coal-tar derivative. Used as an injection in gonorrhœa.

Rumex Crispus. *Dock, or Yellow Dock. Indigenous. N. O. Polygonaceæ.*

Fleshy, fusiform root, with bitter taste, containing tannic and chrysophanic acid. Astringent, depurative, and alterative tonic. Tincture (1 in 10 of proof spirit) ; dose, 5 to 20 drops.

“For morning diarrhœa.”—Sydney Ringer, *Therapeutics*, 1882, p. 459. *Rumicin.* Extractive of above. Dose, 1 to 3 grains.

Rusot. *Berberis lycium, and B. asiatica. India. N. O. Berberidaceæ.*

Root-bark, bitter, from the presence of Berberine. The watery extract of the bark is employed in ophthalmia and as a febrifuge. Dose, $\frac{1}{2}$ to 1 drachm.

Saccharin. (*See Glusidum.*)

Safrol. $C_{10}H_{10}O_2$.

The stearoptene of Oil of Sassafras and Oil of Camphor, liquid at ordinary temperature. Acts like menthol, but not so irritant. Dr. Dana has used it for myalgia, sciatica, and headache. Dose, 20 to 40 minims.

Safrol is the principal constituent of sassafras oil, giving to it its characteristic odour. It is, however, now obtained in much larger quantities from camphor oil, which is exported from Japan, being produced in the collection and distillation of crude camphor. It is also produced to some extent in the islands of Formosa and Borneo.

Salacetol. *Salicyl-acetol.*

Needle crystals, insoluble in water. In salacetol, as in salophen, salicylic acid is coupled with a non-poisonous body. Dr. Bourget reports having treated many cases of infectious diarrhœa by means of 30 to 45 grains of salacetol dissolved in 30 grammes (1 fluid oz.) of castor oil, taken before breakfast. Children bear it well, and it is said to be less injurious than salol (owing to the absence of phenol) ; a child of one year may take $7\frac{1}{2}$ grains daily.

Salactol.

Sodium salicylate and sodium lactate dissolved in a 1 per cent. solution of peroxide of hydrogen have been used in diphtheria as a gargle, and applied to the throat with a brush every four hours.

Salantol.

Composed of salicylic acid and acetone ; similar in its effects to salol ; an intestinal antiseptic ; in 5-grain cachets several times a day.

Salicylamide.

White, odourless needle crystals, soluble in hot water and alcohol. A succedaneum of salicylic acid; for rheumatism, to reduce temperature. In doses of 5 to 15 grains per day, in several doses of 2 to 5 grains.

Salifebrin. *Salicyl-anilid.*

A combination of salicylic acid and acetanilid, prepared by heating together in molecular proportions. A white powder, soluble in alcohol; has an acid reaction.

Saligenin. *Salicylic Alcohol.*

Produced from the glucoside, salicin. Colourless leaflets, of slightly bitter taste, soluble in water and alcohol. Has been recommended for the same uses as salicylic acid, in acute articular rheumatism. Saligenin, 4 parts; rectified spirit, 30 parts; distilled water to 200 parts. One to two dessert-spoonfuls to be taken every hour.

Salinaphthol. $C_{20}H_8(C_{14}H_6O_6)$.

Salicylate of naphthol is a white solid; odourless, tasteless, and insoluble in water. Kobert and Lepine propose to give it in place of salol in acute articular rheumatism; in cachets of 4 to 8 grains four times a day.

Salipyrin. *Salpyrine; Salazon; Salipyrzolin; Salicylate of Antipyrin.*
 $C_{11}H_{20}NO.C_7H_6O_3$. *Salicylate d'Analésine—French Codex Sup.*

A compound of 57·7 parts of Salicylic Acid and 42·3 parts of Antipyrin. A white, sweetish, odourless powder, little soluble in water, but more so in alcohol. Reduces the temperature. Dose, 15 grains to 60 grains: or say 30 grains, and then, in a few hours, 15 grains. In rheumatic fever and influenza.

"It seems to have no advantage over antipyrin."—*Brit. Med. Journ.*, October 4th, 1890.

Salithymol. $C_{17}H_{18}O_4$.

Salicylate of thymol. A white crystalline powder, nearly insoluble in water, soluble in alcohol. A strong internal antiseptic, in 5-grain cachets several times a day.

Salix Nigra. *Pussy Willow; Black Willow. N. America. N. O. Amentaceæ.*

This tree, with lanceolate leaves and soft catkins, grows on the banks of streams in the southern States of North America: its bark is used.

SALIX NIGRA—*continued*.

THERAPEUTICS. A sexual sedative, especially in irritation and pain at the menstrual periods in nervous women : a strong anaphrodisiac.

"In 75 per cent. of such patients, great relief was obtained, after several days' treatment, by $\frac{1}{2}$ -drachm doses of the fluid extract, three times a day."—Dr. Hutchison, *Brit. Med. Journ.*, July 30th, 1887.

"A sexual sedative of decided value, useful in ovarian hyperæsthesia and seminal emissions, and urethral neuralgia. Dose, $\frac{1}{2}$ to 1 drachm. Sodium salicylate is also useful in urethral pain, in doses of 5 to 8 grains."—Mr. E. H. Fenwick, *Lancet*, September 24th, 1887.

Salix alba (willow, Europe). Its bark, containing about 1 to 3 per cent. of salicin and 10 per cent. of tannin, has been used as an astringent tonic, also as a febrifuge and a vermifuge.

Salocoll. *Phenocoll Salicylate.* $C_6H_4.OC_2H_5.NCOCH_2NH_2.C_7H_5O_2$.

Combines the action of salicylates with those of phenocoll, which in the form of hydrochloride has done good service. It has been found to be antineuralgic, antirheumatic, analgesic, non-toxic, and without effect on the circulation of the blood or action of the heart.

Salol. *Salicylate of Phenol (Sahli), or Salicylate of Phenyl (Moss); Phenyl Ether of Salicylic Acid.* $C_{13}H_{10}O_3 = C_6H_4OH.COO(C_6H_5)$.

Prepared by heating together sodium salicylate and carbolate with phosphoric chloride; first produced by Prof. von Nencki, of Berne, and reported on by M. Sahli, of Berne, in 1886.

CHARACTERISTICS. A white crystalline powder, of slightly aromatic taste and smell: it contains about 60 per cent. of salicylic acid, and about 40 per cent. of phenol. It is salicylic acid in which one atom of hydrogen is replaced by one of phenyl.

Insoluble in water, soluble in alcohol, melting at 108° F.

THERAPEUTICS. It acts like salicylic acid in acute rheumatism, but its chief value is as an internal antiseptic.

It is not dissolved in the stomach, but mixing with the pancreatic ferment in the duodenum, it is believed to split into its two original compounds, salicylic acid and phenol.

Dose, 15 to 30 grains, suspended in water or milk. Acute articular rheumatism: 25 grains thrice a day for adults; and 8 grains for children, four to six times a day. As an antipyretic, in doses of 30 grains three or four times a day.

SALOL—*continued*.

“In sciatica, 8 grains in evening, and 16 grains at bedtime, give a good night.”—Dr. Aschenbach, of Corfu, *Pharm. Record*, 1887, p. 230.

“In cholera, bowel complaints, and typhoid fever, as an internal antiseptic, 10 grains every three hours, most successful.”—Dr. Gallet, of New York.

Salol is a strong antiseptic and germicide, and a disinfecting, deodorising mouth-wash. Externally used like iodoform to ulcers.

In French Sup., Codex, and U.S. Pharm.

In diarrhœa. When salol was introduced as a remedy, it soon took rank as an intestinal antiseptic as reliable as any that had been brought forward; in 5-grain doses, combined with 10 grains of bismuth and 2 drachms of chalk mixture, as in the following prescription:—
℞ Salol, 1 drachm; Bismuth. Subnit., 2 drachms; Mist. Cretæ, q.s., 3 ounces. *M.*—Two drachms every two hours. Children over one year of age are given 3-grain doses of salol. If the attack is severe, directions are given to take the same dose every hour until the diarrhœa is checked.

As a coating for pills. In consequence of the fact that salol is not dissolved in the stomach, but is only attacked by the pancreatic juice after it reaches the intestine, Dr. Ceppi suggested its use for coating pills intended not to act *before they reach the intestines*.

Salol	...	...	...	...	...	...	30 grains.
Tammin	...	...	...	...	...	...	7½ „
Ether	...	...	...	...	...	...	3 fl. drs.

With this solution the pills are varnished several times, until the protecting layer is sufficiently thick.

Di-iodo-salol has been proposed for skin diseases.

Salophen. $C_6H_4.OH.COOC_6H_4.N.H.COCH_3$.

This compound, allied to Salol, is made by Bayer, at Elberfeld, from paranitro-phenol and salicylic acid, about equal parts. In crystalline plates, neutral, without odour and taste. Insoluble in cold, slightly soluble in hot water, but readily in alcohol.

THERAPEUTICS. For articular rheumatism with pain and fever. Dose, 60 to 90 grains daily, either in powders or compressed tablets.

Dr. W. H. Flint has employed Salophen with good results in fourteen cases of acute articular rheumatism, in doses of 15 grains every three hours; at the same time 10 grains of sodium bicarbonate were given three times a day.

Salubrin.

Is the name given to a Swedish medicine prepared by Habarson as follows :

Acetic anhydride	...	...	...	...	2 per cent.
Acetic ether	...	...	...	...	25 „
Alcohol	...	...	...	...	50 „
Water	..	...	...	...	23 „
					100

Its action being too strong in the above formula, it is recommended to be diluted from 2 to 6 parts of water to 1 of the mixture. It is said to be an efficient antiseptic and hæmostatic in contusions, rheumatism, &c.; also in cough and influenza.

Salumin and Tannal.

Salumin is aluminium salicylate; it is insoluble in water and in alcohol, but soluble in alkalis. With ammonia it forms a neutral double salt, which is readily soluble in water and in glycerine. It exerts both an astringent and an irritant action on the nasal mucous membranes, and may thus be employed with advantage in powder by insufflation or in solution in the treatment of ozaena and dry pharyngitis. Tannal is aluminium tannate. It is also insoluble, but forms, with tartaric acid, a very soluble and non-irritant double salt. It is an energetic astringent in the treatment of catarrhal rhinitis, pharyngitis, and laryngitis; either pure tannal, by insufflation, or the double salt aluminium tanno-tartrate in water as a gargle or spray.

Sanguinal.

A preparation of fresh blood defibrinated and evaporated, in pill form, each pill to represent $1\frac{1}{4}$ grains of fresh blood. In anæmia, &c.

Sanguinaria Canadensis. *Blood-root. N. America. N. O. Papaveraceæ.*

The rhizome, thick, slightly annulated, has a whitish fracture, with numerous small red resin-cells. Emetic, diaphoretic, and purgative; chronic and acute bronchitis. Dose of tincture (1 in 10), 30 to 60 drops. Its active principle is *Sanguinarine*, $C_{20}H_{15}NO_4$, white, and soluble in alcohol.

Sanguinarin. Brown extractive resin. Is similar in its properties to Leptandrin, with similar dose, viz. $\frac{1}{2}$ to 2 grains.

"Sanitas" Disinfecting Fluid.

An aqueous solution of turpentine, which has been oxidised by exposure to air. It probably contains some camphor in solution, thymol, hydrogen dioxide, and a small proportion of camphoric acid.

Sanmetto. *An American speciality.*

It is an aromatic blend of oil of sandal-wood and fluid extract of saw palmetto. For genito-urinary diseases; one teaspoonful four times a day.

Sanoform. *Di-iodo-methyl salicylate.*

Introduced by A. Aruehm as a non-poisonous substitute for iodoform, it is a product of the action of iodine upon methyl salicylate containing 62·7 per cent. of the former. An odourless and tasteless white crystalline powder, not decomposed on exposure to air or light. It fuses at 110°, and is soluble in ether, hot alcohol, and vaseline.

Santonin Oxide.

Produced by hydroxylamine hydrochloride acting on santonin.

White, acicular crystals, insoluble in water, but soluble in alcohol. A non-toxic anthelmintic; dose, 5 to 10 grains, followed by castor oil.

Santonitoxin. *A derivative of Santonin.*

White crystals, soluble in alcohol; almost insoluble in water. Anthelmintic, less toxic than santonin. Dose: two or three years, 1 grain; four to nine years, 2 grains; adults, 5 grains. Administer in two portions at intervals of one to two hours.

Saponin. $C_{32}H_{54}O_{18}$. *From the root of Saponaria officinalis (N. O. Caryophyllaceæ) and the bark of Quillaia saponaria (N. O. Rosaceæ). Probably also contained in the fruit of Sapindus saponaria, West India Soap-nuts (N. O. Sapindaceæ).*

This glucoside, which exists 4 to 5 per cent. in the first-named root and 9 per cent. in the second bark, is brown and brittle; also, when pure, as a colourless powder and soluble in water, which froths on agitation. Slightly soluble in alcohol, insoluble in ether and chloroform. Taste at first sweet, then acrid. Its aqueous solution dissolves some salts which are insoluble in water, PbS, BaSO₄, &c. Locally an irritant "muscle poison;" seldom used in medicine. Dose, $\frac{1}{10}$ to $\frac{1}{2}$ grain. Heated with dilute acids, separates into glucose and crystalline saponetin or sapogenin, $C_{40}H_{66}O_{15}$.

Dr. R. Kobert says, "The commercial article contains four organic substances—pure saponin ($C_{12}H_{20}O_{10}$), inert; inert lactosin; quillaic acid, and sapotoxin, both acrid and poisonous."—*Pharm. Journ.*, xvi, 366.

Saprol. "*Disinfection Oil.*"

Is a dark brown oily mixture, composed of the crude cresols in an excess of the liquid hydrocarbons obtained from the refining of petroleum.

Sarcocephalus Esculentus. (*See Doundaké.*)**Sarcosine.**

The hydrolysis of caffeine with baryta gives a large yield of Sarcosine. It has many salts and several derivatives, as nitro-sarcosine, benzoyl-sarcosine, and acetyl-sarcosine.—*Year-book Pharm.*, 1895.

Sarracenia Purpurea. *Side-saddle Plant, or Huntsman's Cup. United States. N. O. Sarraceniaceæ.*

Stimulating diuretic. Dose of fluid extract, 20 to 30 minims. It was once believed to have power in smallpox.

Sassa Bark. (*See Casca.*)**Scilline.** *From Scilla maritima. N. O. Liliaceæ.*

Pale yellow, crystallisable, tasteless powder. Soluble in alcohol, but scarcely in water. Does not affect the heart.

Scillipierine. Amorphous and dark yellow, with bitter taste. The diuretic principle, and a valuable remedy of this kind. On account of its solubility in water, used for hypodermic injections, in doses of 15 minims of a 2 per cent. solution.

Scillitoxine. Cinnamon-brown, amorphous powder, of a strong bitter taste; soluble in alcohol, but not in ether or water.

It is a strong heart-poison or cardiac sedative, acting on the kidneys, but often producing giddiness and headache. Dose, 1 to 4 minims of a 2 per cent. solution, to be taken once a day.

Scoparine. $C_{21}H_{22}O_{10}$. *From Spartium scoparium (Cytisus scoparius), Broom. Indigenous. N. O. Leguminosæ.*

Yellowish-white powder. Scarcely soluble in cold water, but easily in alcohol and glycerine. An efficacious diuretic; in powder or pill, 7 to 15 grains; or hypodermically injected, in water containing a very little ammonia, in doses of $\frac{1}{4}$ to $\frac{1}{2}$ grain. Internally the dose is much larger, probably from its being more slowly absorbed. See also Sparteine.

Scopola Carniolica. *Scopolina atropoides.* *Austro-Hungary.* *N. O. Solanaceæ.*

These roots contain the mydriatic alkaloids, atropine, hyoscyamine (mainly), and hyoscyne, and also probably a similar base, called Scopolamine (see Hyoscyne); this is an alkaloid, brown and viscid, soluble in chloroform. It dilates the eye's pupil rapidly. *Rotoine*, from this plant, is now believed not to be an alkaloid, but a "soap."—*Y.-bk. Pharm.*, 88, p. 134.

This and *Scopola Hludvikiana* yield also scopoletin, a blue fluorescent compound.—*Pharm. Journ.*, xx, pp. 468 and 792.

Scopola Japonica is Japanese belladonna root.

Scopolamine Hydrobromate. $C_{17}H_{21}NO_4.HBr + 3H_2O$.

Scopolamine Hydrochlorate. $C_{17}H_{21}NO_4.HCl + 2H_2O$.

These two preparations are chemically identical with the corresponding salts of hyoscyne.

Scrophularia Nodosa. *Figwort.* *Europe.* *N. O. Scrophulariaceæ.*

This herb, with quadrangular stem and greenish flowers, contains crystalline Scrophularin, and is a depurative.

Scutellarin. *From Scutellaria lateriflora, Skull-cap, Northern Blue.* *N. O. Labiata.*

Yellowish-brown dried extractive from the flowering tops; a tonic stimulant to nervous system. Dose, 1 to 3 grains.

Senecio Aureus; S. gracilis; S. Jacobaea. *Ragwort; Life-root.* *N. O. Compositæ.*

These herbs are used as emmenagogues in dysmenorrhœa and amenorrhœa. Dose: tincture (1 in 10), 1 to 2 drachms; fluid extract, 20 to 50 drops.

Senecin. Eclectic extractive resinoid. Dose, 1 to 5 grains.

Serum Paste.

Serum powder with wax and zinc oxide; wound protective.

Serum Powder.

Dried, powdered, and sterilised blood-serum; wound protective.

Sesamm Indicm. *S. orientale.* *Benne.* *India.* *N. O. Pedalineæ.*

The lanceolate leaves, with prominent veins, are used in India as a demulcent in infusion for dysentery, on account of their mucilage. The flat seeds produce about 50 per cent. of a bland, yellow, demulcent oil, which is known as oil of sesame or oil of benne; it contains olein, myristin, palmitin, and stearine (Maisch). The seeds of *S. indicum* are yellowish, those of *S. orientale* are blackish.

Sethia Acuminata. *India; Ceylon. N. O. Erythroxylaceæ.*

The leaves of this small tree are used by the natives as a vermifuge, especially for lumbrici, 2 drachms of the powdered leaves at a time.

Taste not unpleasant; they contain an alkaloid, for which the name Sethine has been proposed. Dose of fluid extract, 60 minims.

Siegesbeckia Orientalis. *Asia. N. O. Compositæ.*

An herb with a bitter taste, used especially in Mauritius.

THERAPEUTICS. Alterative and depurative in syphilis: similar to sarsaparilla.

In ringworm and herpes it has been used: a mixture of the tincture and glycerine, well rubbed on the parts affected, 1 to 3 ounces of the former to 1 ounce of the latter. The tincture also stimulates the stomach like a bitter tonic. Dose, 1 drachm; fluid extract, dose 10 drops.

Simaba Cedron. (*See Cedron.*)

Simmlo. *Capparis coriacea. Peru. N. O. Capparidaceæ.*

The fruit is used, powdered, 1 part in 10 of wine: dose of this wine, 2 ounces twice a day. Dose of tincture, 1 drachm.

In nervous diseases, as epilepsy, hysteria, &c.

Smilax China. *China Root. N. Asia. N. O. Liliaceæ.*

Large irregular tubers, reddish brown with mealy interior. China root contains smilacin and starch, and is an alterative.

Sodium Peroxide. Na_2O_2 .

A white powder which dissolves in water, forming peroxide of hydrogen and sodium hydrate. The solution of this preparation acts as a powerful bleaching agent, on account of nascent oxygen produced by the peroxide of hydrogen. Sodium peroxide is used by American dentists to bleach decayed teeth, and to disinfect their roots. 40 to 50 per cent. watery solutions are used, in applying which a cofferdam must always be employed. In bleaching discoloured teeth with decayed pulp, the solution is applied to the cavity on a piece of asbestos wool.

Sodium Benzoate. $\text{NaC}_7\text{H}_5\text{O}_2$.

"This salt may be obtained by neutralising benzoic acid with solution of carbonate of sodium, and evaporating to dryness.

CHARACTERS. "A white crystalline powder, having a faint odour, and a sweetish taste. Soluble in water, and in twenty-four parts of rectified spirit."—1890 Add. to B. P.

THERAPEUTICS. In diphtheria, 7 to 15 grains every hour; also in summer diarrhœa of children, $\frac{1}{2}$ drachm in solution, divided during the day. Dose, 10 to 30 grains.

Sodium Borosalicylate.

A mixture of two molecular weights of sodium salicylate and four of boric acid. When finely powdered and mixed with a little water, the resulting hard mass is dried and again powdered. An efficient, non-toxic antiseptic.

Sodium Chloroborate.

White crystalline powder, soluble in water. Strong antiseptic, both in medicine and as a preservative of meat.

Sodium Dithiosalicylate.

A combination of two molecules of sulphur with two of sodium salicylate, dithiosalicylic acid being obtained from sulphur chloride and salicylic acid.

A whitish-grey powder, very soluble in water. For articular rheumatism, quickly lowering temperature without causing stomach disturbance: considered by some to be stronger than the salicylates.

Dose, 3 to 5 grains, morning and night.

Sodium Ethylate. $\text{C}_2\text{H}_5\text{NaO}$.

Viscid brown liquid, produced by dissolving sodium in absolute alcohol. Also in a whitish powder. A strong caustic. Has been used for lupus, in a solution of equal parts in alcohol or water.

Sodium Fluosilicate.

Prepared by saturating with sodium carbonate a solution in water of hydrofluosilicic acid.

In powder: a caustic, powerful antiseptic; must be used in dilute solution, 1 in 200 or 500 of water; injected into suppurating ulcers in nose, ear, vagina, urethra, &c.

Sodium Formate. $\text{NaCHO}_2 \cdot \text{H}_2\text{O}$.

Small, white, deliquescent crystals. Soluble in water, also in glycerine. Action: by parenchymatous injection, in tuberculosis. Dose: adult, 3 grains; child, $\frac{2}{5}$ to $1\frac{1}{5}$ grains. Used once every eight days. To be kept well stoppered.

Sodium Glycocholate. $\text{NaC}_{25}\text{H}_{42}\text{NO}_6$.

Prepared from the bile of bulls and oxen. It is a fine yellow-white powder without smell, having a very bitter taste, soluble in water and in alcohol.

Sodium Gynocardate.

Is put up in capsules containing 3 grains each (.2 gm.). Dose, 2 to 5 capsules twice a day before meals.

Sodium Hippurate. $\text{C}_9\text{H}_5\text{NaNO}_3 \cdot \text{HO}$.

Greyish-white odourless powder, with faint alkaline taste. Believed to remove excess of uric acid in gout, gravel, or calculus. Dose, 10 grains, in powder or aromatic mixture. The hippurates are supposed to replace the urates.—Dr. Garrod, *Lancet*, 1883, p. 672.

Sodium Iodate. NaIO_3 .

White, scentless, crystalline salt, soluble in water: it is separated in small crystals from concentrated aqueous solutions by the addition of glycerine or absolute alcohol.

R Sodii Iodici pulverati, 48 grains; Acidi Borici pulv., 6 drachms. For external application. Dusting powder for wounds, &c.

OTHER IODATES.

Atropine iodate. $\text{C}_{17}\text{H}_{23}\text{NO}_3 \cdot \text{HIO}_3$. Colourless needles soluble in water and in alcohol. Its solutions remain free from germs for some time.

Codeine iodate. $\text{C}_{18}\text{H}_{21}\text{NO}_3 + 2\text{HIO}_3$. White needles slightly soluble in water or alcohol; with age the salt decomposes, assuming a brown coloration from the liberation of iodine.

Lithium iodate. $\text{LiIO}_3 + 1 - 2\text{H}_2\text{O}$. A white powder, freely soluble in water.

Mercuric iodate. $\text{Hg}(\text{IO}_3)_2$. White amorphous powder, almost insoluble in plain water, but soluble in water containing sodium chloride or potassium iodide.

IODATES—*continued*.

Quinine iodate ($C_{20}H_{24}N_2O_2 \cdot HIO_3$) is a white, crystalline powder, soluble in water.

Scopolamine iodate ($C_{17}H_{21}NO_4 \cdot HIO_3$) occurs as colourless crystals soluble in water and in alcohol.

Strychnine iodate ($C_{21}H_{22}N_2O_2 \cdot HIO_3$) is in long, colourless needles, usually conglomerated and soluble in water.

Sodium Paracresotate. *Sodium Paracresotinate.*

White powder, soluble in hot water. Antipyretic, antirheumatic, intestinal antiseptic. Dose, 2 to 20 grs. three times daily.

Sodium Santonate. $Na_2C_{15}H_{18}O_4$.

White crystals. Santonin (considered the anhydride of an acid) combined with sodium. Vermifuge; 5 grains for threadworms.

Sodium Sulphanilate.

The sodium salt of sulphanilic acid. White laminae, soluble in water. For acute catarrh, in doses of 5 to 10 grains.

Sodium Sulphoricinate.

This consists of sulphoricinic acid (which is a compound of castor oil and sulphuric acid), incompletely saturated by sodium oxide; it is a thick reddish yellow liquid, smelling of castor oil, and making an emulsion with water. It is useful as a solvent of several medicines, as carbolic acid, sulphur, salol, &c. In French Codex Suppl.

Sodium Sulphovinate. $NaC_2H_5SO_4$. *Ethyl-sulphate of Sodium.*

A white granular or crystalline powder, deliquescent and unstable. A mild but effective cathartic, in doses of 2 drachms for children, and 3 drachms for adults, in a tumbler of water. In French Codex, 1884.

Sodium Tanrocholate.

A whitish powder, from bile, generally pig's bile.

In the dyspepsia of gout. Dose, 2 to 5 grains in pill, which should be coated with keratin.

Sodium Tellurate.

Used with success for the night sweats of phthisis. Dose, $\frac{1}{2}$ grain in a pill. It seems to possess an inhibitory action on the nervous system of the sudoriferous glands. The garlicky odour given to the breath is a disadvantage. Potassium tellurate is also used in similar doses.

Sodium Tetraborate

Is the name which has been given to a combination of equal parts of sodium diborate (borax), boric acid, and water. Heat is applied to complete the reaction, and upon cooling the new salt is found to be neutral.

Sodium Thiosulphate. *Hyposulphite of Soda.*

For flatulent dyspepsia. Dose (internally), 3 to 4 grains twice daily—two hours after meals. Excellent results, with disappearance of gastralgia and tympanites.

Solanum Paniculatum. *Jurubeba. Brazil. N. O. Solanaceæ.*

CHARACTERISTICS. A Brazilian plant, used there as an alterative tonic in syphilis, liver diseases, &c. It is purgative and diuretic, but specially purifying to the blood.

Infusion: 1 part to 10 of water, three or four times a day. Dose of fluid extract, 2 to 5 drops.

THERAPEUTICS. The powdered extract, *Jurubebin*, is given in the United States for syphilis, combined with the powdered extracts of Yerba Buena (page 199) and Damiana (page 76).

Solutol.

Solutol is cresylic acid (cresol) rendered soluble by means of sodium cresylate; it contains in every 100 cubic centimetres (3½ fluid ounces) 60·4 grammes (2 ounces) of cresylic acid—one fourth free, and three fourths combined as sodium cresylate. According to Hammer, Solutol is a safe disinfectant and anti-putrefactive.

Solveol

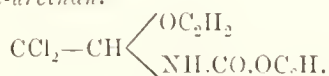
Is a neutral concentrated solution of cresylic acid made with the aid of sodium cresotate: and miscible with water. According to Hammer, 0·5 per cent. solutions of Solveol have a more energetic effect on pathogenic bacteria than 2·5 per cent. solutions of carbolic acid, and its solutions are only very slightly irritating—constituting, therefore, a useful *medicinal* antiseptic.

Somatose.

The albumose of meat freed from peptones. Somatose is a yellow amorphous and finely granular powder, free from any odour suggestive of animal origin. It dissolves completely in water, yielding a light yellow solution, which is clear, bright, odourless, and practically tasteless. The albumoses are readily assimilable substances capable of entirely replacing proteids in the food, and maintaining

SOMATOSE—*continued*.

the body in an equilibrium of nutrition, but somatose is indicated in conditions where an invigorating and easily absorbed food is required: when absorbed, it acts as a nutrient and does not disturb the stomach. The dose naturally depends upon the age and constitution of the patient and upon the nature of the disease, but in general the daily quantity for children is 80 to 120 grains, and for adults 150 to 300 grains.

Somnal. *Ethyl-chloral-urethan.*

An hypnotic, introduced by Radlauer, of Berlin, formed by the union of chloral, alcohol, and urethan.

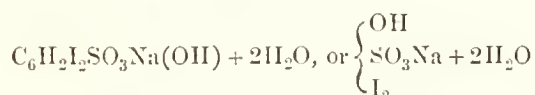
A colourless liquid, resembling chloroform, soluble in hot water or alcohol, with faint odour and pungent taste; it should be freely diluted in an alcoholic solution. Acts like chloral, but is more pleasant; its effect is quick, without depressing after-effects. Dose, 30 minims, in a mixture of any alcohol and water, which can be repeated in a few hours.

Sozal

Is the name applied to an antiseptic. It is the aluminium salt of para-phenyl-sulphonic acid (sozonic acid), which latter is made from carbolic and sulphuric acids. It is soluble in water and keeps well. In crystals with an astringent taste and slight carbolic odour; recommended for surgical dressings, also in 1 per cent. injections, and internally.

Soziodol. *Di-iodoparaphenol-sulphonic acid.*

Generally used as Sodium-Soziodol or



This is a compound of iodine (53 per cent.), carbolic acid (20 per cent.), and sulphur (7 per cent.), and is an antiseptic and substitute for iodoform in external dressings to wounds, &c. Sodium-Soziodol is in colourless, odourless crystals, dissolving in water. Potassium-Soziodol is much less soluble in water.

THERAPEUTICS. It is used in catarrh and ulcers of the larynx and nose, in ozæna, &c., pure or diluted as a dusting powder or in a solution. Mercury-soziodol has been used in syphilitic sores, pro-

SOZOIODOL—*continued*.

moting the healing process. While sodium-soziodol is used generally pure, potassium-soziodol may be used pure or mixed with equal parts of sugar of milk; zinc-soziodol, as 1 to 5 or 1 to 10 parts of sugar of milk; and mercury-soziodol in dilution of 1 to 10 or 1 to 20.

Sparteine. $C_{15}H_{26}N_2$ (or $C_8H_{13}N$. *Dragendorff*), from *Cytisus scoparius*.
Spartium Scoparium.

Sparteine is a stronger diuretic than scoparine (*see* page 156): it is a colourless liquid: the sulphate is a white crystallisable powder, easily soluble in water.

THERAPEUTICS. The sulphate works on the kidneys without disturbance or pain. Dose, $\frac{1}{4}$ grain hypodermically injected, or $\frac{1}{2}$ grain in pill or solution. A heart tonic in dropsy.

“A safe drug—5-grain doses have no bad effect. A fairly powerful diuretic in cardiac cases, with no effect on brain or cord. Is useful in chronic, but useless in acute kidney disease. Occasionally gives slight dyspeptic trouble.”—Prof. Leech, *Lancet*, August 13th, 1887.

Spasmodin. *Sphacelotoxin*.

Obtained by R. Kobert from ergot by extracting with ether, and precipitating by petroleum ether. A yellow, amorphous powder, soluble in ether, alcohol, and acetic ether. It has been given in doses of about 1 grain for the same purpose that ergot is given, and is said to fully represent the latter. The sodium salt is recommended for use hypodermically. The solid bitartrate is also used.

Statice Caroliniana. *Marsh Rosemary*. *North America*. *N. O. Plumbaginaceæ*.

This thick, branched, wrinkled root is a powerful astringent, containing 12 per cent. of tannic acid; used in the United States, especially for ulcerated sore throat. [Baycuru root from *Statice braziliensis*, *see* page 43.]

Stemmatol.

A Norwegian antiseptic containing, in water, turpentine, spirit, soap, glycerine, and aromatics.

Stercsol.

An antiseptic benzoinated collodion. A brown limpid liquid, consisting of tolu, gums, phenol, alcohol, &c., with an aromatic odour, leaving on evaporation a resinous, isolating, antiseptic varnish on the skin.

Sterisol.

An aqueous compound containing formaldehyde, salt, and potassium phosphate; an internal antiseptic.

Stillingia Sylvatica. *Queen's or Yaw Root; Queen's Delight. North America. N. O. Euphorbiaceæ.*

Root thick, large, tapering, with bitter taste and strong odour, an alterative and antisyphilitic. It contains an acrid resin, *sylvacrol*, but no alkaloid. Dose of fluid extract, 10 to 60 minims. The mixed fluid extracts of *Stillingia*, *Smilax sarsaparilla* (bamboo-brier root), *Lappa minor*, *Phytolacca decandra*, and *Xanthoxylum carolinianum*, have been used by Dr. Marion Sims for syphilis.—*Brit. Med. Journ.*, March 10th, 1883. Dose, one teaspoonful in water, thrice a day, gradually increased up to tablespoonful doses. "Satisfactory results have been obtained from the use of *Stillingia* in syphilitic affections."—Roberts Bartholow, *Mat. Med.*, 1876, p. 234.

Stillingin, extractive. Dose, 1 to 2 grains.

Strontium Salts.

Bromide and iodide of strontium are prescribed in the same manner as are similar salts of sodium but in larger doses—from 2 to 4 drachms a day. The following prescription is given for the use of bromide of strontium:—

℞	Syrup of oranges...	...	...	6 ounces
	Syrup of bitter oranges...	...	...	6 "
	Powdered bromide of strontium	...	1	"

A teaspoonful to be taken at a dose.

A solution of iodide of strontium may be given in the following manner:—

℞	Distilled water	...	...	10 ounces.
	Iodide of strontium	...	...	5 drachms.

A dessert-spoonful at a dose.

Lactate of strontium is administered in the dose of 90 to 120 grains a day. In nephritis the lactate reduces the quantity of albumen without causing diuresis. The nitrate is prescribed in cases of articular rheumatism. The dose of nitrate of strontium is 6 drachms

STRONTIUM BROMIDE—*continued.*

or more *pro die*. Strontium bromide, which like Strontium lactate is so valuable in dyspepsia, as a sedative gastric analgesic, has been found useful in the vomiting of pregnancy, in 15-grain doses with the two principal meals, given in powder with bread.

Strophanthin. $C_{20}H_{31}O_{10}$. ($C_{31}H_{48}O_{12}$.)

An imperfectly crystallised glucoside, neutral or faintly acid, intensely bitter, soluble in water, less so in spirit; it occurs abundantly in the seeds, combined with kombic acid. Sulphuric acid causes crystalline Strophanthidin to separate.

A powerful heart tonic.

"Hypodermic dose, $\frac{1}{120}$ to $\frac{1}{60}$ grain."—Prof. Fraser of Edinburgh, *British Medical Journal*, July 23rd, 1887.

"It contracts slightly the kidneys, with no increase of secretion."—Dr. Phillips of London, *N.Y. Medical Record*, Sept 10th, 1887.

Strophanthus. *Tropical Africa. N. O. Apocynaceæ.*

A woody forest climber; the Kombé arrow-poison of Africa.

It has been investigated by Prof. Fraser, of Edinburgh, and reported on by him in the *British Medical Journal*, vol. ii, 1885, page 904. Six sorts have reached Europe:

Strophanthus Kombé, from Central and East Africa; hairy, glistening, greenish: truncated or rounded at base; this is the seed imported into England, probably a variety of *S. hispidus*.

S. hispidus; Guinea; brown, velvety; acuminate below.

S. of the Niger; larger, brown, pubescent; rounded base.

S. of Zambesi; having a thick woolly coat of white hairs.

S. of Sourabaya; this and the next sort are unknown in commerce.

S. of Gaboon; thin, yellow, and quite smooth.

The pod-like follicles, 8 to 10 inches long, contain the seeds, each having a long feathery awn; intensely bitter, and greenish yellow in colour.

"The mature ripe seeds of *Strophanthus hispidus*, DC., var. *Kombé*, Oliver, freed from the awns.

CHARACTERISTICS. Flat and oval, about three-fifths of an inch long and one-sixth of an inch broad, the base blunt, the apex tapering, greenish awn, covered with silky hairs; one side with a longitudinal ridge. Kernel white and oily, taste very bitter.

PREPARATION. Tinctura Strophanthi, 1 part in 20 fluid parts.—1890 *Add. to B. P.*

STROPHANTHUS—*continued*.

THERAPEUTICS. A true muscle poison—one of the digitalis group. A heart tonic and diuretic. Dose: of the tincture of the B. P. 1890 Add. (1 part of seeds in 20 of rectified spirit), 2 to 10 minims every two or three hours, or 5 to 10 minims three or four times a day.

“It controls rigors after instrumentation on the urethra, in doses of 5 minims.”—Dr. Fenwick, *Lancet*, September 24th, 1887.

Strychnine Arsenate.

White, crystalline powder with bitter taste. Tonic and diuretic in phthisis. Dose, 8 to 15 drops of a $\frac{1}{2}$ per cent. solution.

Stypticine. $C_{12}H_{13}NO_3 + H_2O.HCl$. *Hydrochlorate of Cotarnine*.

Cotarnine is a base, chemically related to hydrastinine, obtained by the oxidising of narcotine. In yellow crystals, soluble in water. In metrorrhagia, as a hæmostatic, inject 2 minims of a 10 per cent. solution a few days before the periods, or $\frac{1}{5}$ grain internally.

Styracol. $C_6H_5CH.CH_3COOC_6H_4OCH_3$.

Is used chiefly in the treatment of tuberculosis. It is the cinnamic ether of guaiacol. Split up when taken internally, the resulting component part, guaiacol, is supposed to be the effective agent. Internally, good results are looked for in cases of chronic catarrh of the bladder, stomach, and intestines.

Styrone.

A compound formed in styrax and balsam of Peru. Thin needles, with a hyacinth odour, soluble in alcohol. A deodorising non-toxic antiseptic. Use a 4 per cent. alcohol solution; a teaspoonful of this solution in a glass of lukewarm water for infections and washings.

Sublimophenol.

In white crystals. A mixture of mercuric carbolate and mercuric chloride; the reddish precipitate is dissolved in, and then crystallised from alcohol; melts at $210^{\circ}C$. Antiseptic; *see* page 126.

Sulphaldehyde.

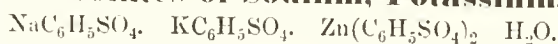
An hypnotic obtained by the action of sulphuretted hydrogen on ethylic aldehyde.

Sulphaminol. *Thio-oxydiphenylamine.*

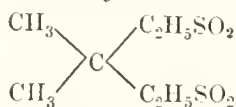
A substitute for iodoform, easily breaking up into phenol and sulphur. A yellow powder, without taste or smell, soluble in alcohol and alkalies, though not in water, melting at 155°C .

A deodorising antiseptic, used internally and externally, said to be safe and non-irritant; especially in laryngological practice.

A dry antiseptic dusting powder. It is antiseptic, antiphlogistic, and non-odorous; suppresses ulceration in wounds, purifies them, and frees them from smell. The abscesses cicatrise under a dry crust of sulphaminol without irritation of the neighbouring tissue.

Sulphocarbates of Sodium, Potassium, Zinc.

Sulphocarbolic acid ($\text{HC}_6\text{H}_5\text{SO}_4$) is produced by heating together sulphuric and carbolic acids. The Sodium salt is used in flatulency; dose, 10 grains in 1 oz. water. The Zinc salt in gonorrhœa, as an injection, 2 grains to the ounce of water.

Sulphonal. *Diethylsulphondimethylmethan.* $(\text{CH}_3)_2\text{C}(\text{C}_2\text{H}_5\text{SO}_2)_2$.

An oxidation product of the union of ethyl-mercaptan and acetone, introduced by Kast in 1888.

CHARACTERISTICS. "Colourless, inodorous, nearly tasteless crystals; neutral to test-paper; melting at 258°F . (125.5°C). Soluble in fifteen parts of boiling water, four hundred and fifty parts of cold water, or fifty parts of rectified spirit."—1890 *Add. to B. P.*

In small white crystals, easily powdering; sparingly soluble in water; without taste or odour.

THERAPEUTICS. Of service when sleeplessness is persistent, producing calm normal sleep in about an hour's time.

Dose, 15 to 25 grains for a woman, 20 to 40 grains for a man, an hour before bedtime, in a powder or suspended in water, or in a cachet.

"Increasing in favour; a first-rate and safe hypnotic, especially in brain worry or mental strain where the mind gives way."—Dr. J. Gordon, *Brit. Med. Journ.*, March 29th, 1890.

"In the painful muscular spasms after bone fractures, its effects are surprising in effectually suppressing the spasms without necessarily inducing sleep. In 10 to 15 grain doses, by night or day, without

SULPHONAL—*continued.*

any reference to its hypnotic action.”—Dr. E. Andrews, Chicago, *Squibb's Ephemeris*, 1895.

“There are many who are more or less knocked up by a long journey; Sulphonal, in 10 to 15 grains, prevents this. A woman travelling from London to Flushing, always sea-sick in the calmest weather, after taking 15 grains slept well and was not sick.”—*Lancet*, 1895, p. 1434.

Symphorol.

Symphorol, or caffeine-sulphonic acid, has been prepared by Dr. Heinz and Dr. Liebrecht; it is claimed as a reliable diuretic, which can be employed in larger doses than caffeine by itself. The sodium, lithium, and strontium salts of caffeine-sulphonic acid have been prepared and given the distinguishing suffixes Symphorol N, Symphorol L, and Symphorol S respectively. Symphorol N, or sodium caffeine-sulphonate, is a white micro-crystalline powder, free from odour and of bitter taste. It dissolves very slowly in 50 parts of cold water. Any of the salts can be taken dissolved in water, or if the bitter taste is objected to, administered in capsules or compressed in tablets. The dose of 60 grains *pro die*, in 4 portions of 15 grains each, has been given without any disturbance of the general system.

Symphytum Officinale. *Comfrey. Europe. N. O. Boraginææ.*

Root is horny and wrinkled, taste sweetish and mucilaginous; demulcent. Dose, $\frac{1}{4}$ to $\frac{1}{2}$ ounce.

Symplocarpus Fœtidus. *Ictodes fœtida; Dracontium fœtidum. Skunk Cabbage. N. America. N. O. Aroidææ.*

Obconical, truncate rhizome, with disagreeable odour and acrid taste. Antispasmodic stimulant and emetic, in doses of 5 to 15 grains.

Syzygium Jambolanum. (*See Jambul.*)

Tanacetum Vulgare. *Tansy. Europe. N. O. Compositææ.*

This erect herb, with serrated leaves and yellow florets, containing $\frac{1}{4}$ per cent. of volatile oil and bitter Tanacetin, is tonic, diuretic, and emmenagogue, in doses of one drachm in infusion.

Tannal. *See page 116.*

Tannalbin.

This tannin albuminate, prepared by Dr. Gottlieb, of Heidelberg, is a yellowish powder, containing about 50 per cent. of tannic acid. It is a combination of tannin, remaining unaltered in the stomach, but so gradually split up in the intestines that the tannin is liberated little by little, and exerts its action in the alkaline intestinal contents as alkali tannate. Tannalbin is odourless, tasteless, and agreeable to take without altering the gastric functions. In chronic intestinal uncomplicated catarrh, it is a reliable remedy; 15 grains could with safety be administered to adults and old children, and $7\frac{1}{2}$ grains to children under four years of age. Two to four such doses a day, for several days.

Tannigen *Acetyltannin.*

An intestinal astringent; it is a compound of tannin and acetyl. Obtained by Prof. H. Meyer, of Marburg, and intended particularly for the treatment of chronic diarrhœa; over tannic acid it is said to offer the advantage of passing the stomach without exerting its astringent action, which manifests itself only on reaching the intestines, where the remedy is decomposed by the alkaline fluids. Tannigen is a yellowish-grey, odourless, tasteless, slightly hygroscopic powder. Insoluble in cold water, sparingly soluble in hot water and in ether, but soluble in cold alcohol; tannigen is a comparatively harmless and efficacious intestinal astringent in chronic diarrhœa. It is stated that doses of 3 to $7\frac{1}{2}$ grains of Tannigen suffice, but that it may be given for some length of time in doses of 45 to 60 grains a day without inconvenience.

Tannoform. $C_{29}H_{26}O_{18}$.

A product of gallotannic acid and formaldehyde. It is a reddish-white, light powder, insoluble in water, but soluble in alkaline solutions. It differs from Tannin, which unites with the albuminoids in the stomach; it exercises no irritant action on the mucous membrane, and is harmless in doses in which Tannin would be deleterious to gastric digestion. Being insoluble in water and acids, but soluble in diluted alkalis, it is not assimilated in the stomach, and therefore reaches the intestinal canal unchanged: dose internally up to 15 grains; also useful in the treatment of various forms of skin disease; 1 part to 4 of starch powder.

Tamosal.

A name given by Feigel of Mulhausen to a combination of tannic acid and creosote at a high temperature. It is a brown amorphous volatile powder, soluble in water, alcohol, and glycerin. It does not possess either the burning taste or irritating properties of creosote, and according to Feigel it is decomposed in the intestinal canal into creosote and tannic acid.

Tayuya. *Trianosperma sicifolia* (*T. Tayuya*, Mart.); *Dermophilla pendulica*, S. America. N. O. Cucurbitaceæ.

The root is used for syphilis. A saturated tincture is used, 1 in 4 proof spirit, 15 minims for a dose, diluted, internally. Official in Rio, it has been exported to Italy and France. The alkaliol is *Tayuyina*, a violent purgative.

Terebene. $C_{10}H_{16}$.

CHARACTERISTICS. Obtained by the agitation and subsequent distillation of oil of turpentine and sulphuric acid. It may exist as a crystalline mass; as usually seen, it is a clear, colourless, mobile liquid, with a pleasant odour resembling that of thyme. Spec. grav. 0.860, and boiling at about 313° .

Sparingly soluble in water, readily in alcohol; to be kept in the dark.

THERAPEUTICS. Recommended for winter cough in doses of 5 drops on sugar every four hours, increasing to 20 drops; also in flatulence, and as an expectorant. Also externally as an antiseptic, and for inhalations in bronchitis.—Dr. MURRELL, *Brit. Med. Journ.*, Dec. 12th, 1885.

Terminalia Chebula. *T. bellerica*, *Myrobalans*, India. N. O. Combretaceæ.

Oval, yellowish dried fruit, about one inch long. Contain gallic and tannic acid. Astringent, and used for tanning.

Terpincol.

A thick, colourless liquid with hyacinth-like odour; present in terpinol (see page 184). Recommended as a deodorant for iodoform. When pure it gives the perfume of Muguet, or lily of the valley.

Terpin Hydrate. $C_{10}H_{16}(H_2O)_2 \cdot H_2O$.

CHARACTERISTICS. Is produced by mixing nitric acid, alcohol, and turpentine. In large or small transparent rhombic crystals, which lose one atom of water at 212° F., becoming Terpin, $C_{10}H_{16}(H_2O)_2$. Inodorous and nearly tasteless, only slightly soluble in water, alcohol, and ether, but soluble in glycerine.

TERPIN HYDRATE—continued.

THERAPEUTICS. Recommended by Lepine as “the best expectorant in existence.” In bronchitis, asthma: best given in pills of $1\frac{1}{2}$ grains, with gum or balsam Tolu: 3 such pills three times a day.

FORMULA OF MIXTURE.

Terpin hydrate	...	...	...	...	8 grs.
Glycerine	...	...	...	...	$1\frac{1}{2}$ fl. drs.
Alcohol	...	...	...	...	$2\frac{1}{2}$ „
Syrup ...	...	...	...	...	$1\frac{1}{2}$ „
Ess. Vanilla	...	...	...	...	10 min.

To be taken as one dose.

Terpene is the term applied to ethereal oils having the composition $C_{10}H_{16}$: to these in certain circumstances, with two molecules of water, is given the name of *Terpin*.

Terpinol is $(C_{10}H_{16})_2H_2O$. *Common Camphor* is $C_{10}H_{16}O$.

Terpene Hydrate is $C_{10}H_{16}H_2O$. *Borneo Camphor* „ $C_{10}H_{18}O$.

Benzol is C_6H_6 . *Menthol* „ $C_{10}H_{20}O$.

Thymol and *Eucalyptol* are $C_{10}H_{14}O$.

Phenol is benzol in which 1 atom of hydrogen is replaced by HO (hydroxyl): C_6H_5HO .

Toluol, or Toluene, is benzol in which 1 atom of hydrogen is replaced by methyl (CH_3), and as it is thus analogous to phenol itself it has been defined as phenyl-methane: $C_6H_5.CH_3 = C_7H_8$, or Methane, in which one H atom is replaced by Phenyl. It is useful in histological work (see page 190).

Cymol or *Cymene*, or Propyl Toluol, is toluol in which an additional atom of hydrogen (of the benzol nucleus) is replaced by propyl: $(C_3H_7).C_6H_4.CH_3.C_3H_7 = C_{10}H_{14}$.

Terpinol.

Oleaginous liquid with hyacinth-like odour. Insoluble in water, soluble in alcohol. Bronchial stimulant. Dose, 3 to 10 minims.

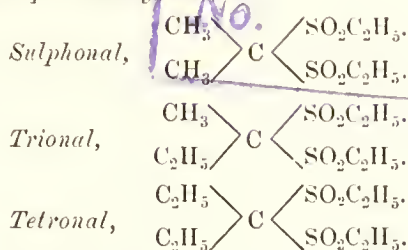
Terrol; Terraline; Paroleine; Glymol.

Fluid petrolenums, without odour or much colour; the first two are used as substitutes for cod liver oil internally in doses of 2 drachms; the two latter as vehicles for nasal and throat sprays.

Tetraethylammonium Hydroxide. $N(C_2H_5)_4HO$.

A solvent for uric acid, that has been tried in 10 per cent. solution (10 minims thrice a day) in acute articular rheumatism.

Tetronal. *Diethylsulphondiethylmethane.*



Tetronal is in white crystals, scarcely soluble in water, fairly so in alcohol. Nearly related to sulphonal, it is hypnotic, in doses of 10 to 40 grains (in powdered crystals), with a warm draught afterwards. *Trional*, an allied product, is hypnotic: dose, 15 to 40 grains.

No injurious effects from either.—*Pharm. Journ.*, August 30th, 1890.

Teucrin. (*Mosetig-Moorhof.*)

A watery, purified extract, obtained by a special process from *Teucrium scordium*. It is brought into commerce in a sterilised form, and is put up in glass tubes containing 3 c.c. A stimulant in the treatment of abscesses, fungoid growths, and lupus. Teucrin is injected in doses of 3 c.c. The entire dose is injected at once, and the puncture closed with plaster.

Teucrium Scordium. *Water-germander. Indigenous. N. O. Labiatæ.*

This herb has been found of some use in America in the treatment of hæmorrhoids, being used both internally and locally. For the latter method of treatment an ointment is made by mixing 1 part of the finely powdered herb with 9 parts of vaseline or fossiline.

One fluid ounce of the liquid extract is equivalent to 1 ounce of the herb. Dose, 1 to 2 fluid drachms of fluid extract.

Thallin. $\text{C}_{10}\text{H}_{13}\text{ON} = \text{C}_9\text{H}_{10}\text{CH}_3.\text{NO} = \text{C}_9\text{H}_6(\text{O}.\text{CH}_3).(\text{H}_4)\text{N}$. *Tetrahydro-para-methyl-oxychinolin.*

A chinolin derivative, produced by Dr. Skraup, in 1884, from coal tar.

CHARACTERISTICS. Crystalline whitish powder, with bitter taste and a penetrating odour of coumarin. Soluble in water, less so in alcohol.

It should be kept from the light. Its name comes from the green colour the salts give with ferric chloride and oxidising agents.

THALLIN—*continued*.

The tartrate and sulphate, yellowish crystalline powders, are used; their solutions, with oxidising substance, yield an emerald green.

THERAPEUTICS. An antipyretic, reducing temperature.

Dose, 3 to 8 grains per day, in pill or solution of water, flavoured.

For injections in gonorrhœa, 1 drachm to 6 of water.

The salts (as the sulphate) of the metal thallium are poisonous.

Thallin Periodide. *Thallin periodosulphate*.

A combination of iodine and thalline sulphate. Black and crystalline, soluble in alcohol. Recommended by Dr. Mortimer Granville for cancer.—*Lancet*, March 10th, 1894. In pills (with musk and pilocarpine) that contain 3 grains each of the periodide; one every two or three hours during the day.

Thamatol. *Guaethol. Ajakol*.

Pyro-catechin mono-ethyl ether is a substance which has as its first name, one from that of Dr. Than, a professor of Buda-Pest. Produced by the action of an ethyl radical on guaiacol, and used as the latter for tuberculosis. It is called guaethol by Merck.

Thapsia Garganica. *Bou Nefa. Algiers. N. O. Umbellifera*.

The root-bark yields a brown rubefacient resin, with the effects on the skin of croton oil. The plaster, used in France, contains 1 in 7 of the resin, and is irritating to the skin.

Theine. $C_8H_{10}N_4O_2$. From *Camellia thea* (*Thea viridis* and *T. bohea*). *N. O. Ternstroemiaceæ*.

White silky crystals. A bitter feeble base and tonic stimulant. An identical principle is found in coffee, guarana, Paraguay tea, and kola nuts. Dose, 1 to 3 grains. Chemically the same as caffeine, but produces spasms, and its lethal dose is larger. China tea has $1\frac{1}{2}$ to 4 per cent. of Theine; Indian and Ceylon teas have 3.2 and 4.6 per cent.

The leaves also contain *Theophylline*, crystallisable, isomeric with Theobromine, soluble in hot water, and 10 to 20 per cent. of tannic acid.

Theobromine. $C_7H_8N_4O_2$. From *Theobroma cacao*. *N. O. Sterculiaceæ*.

A white crystalline bitter powder. This alkaloid forms crystalline salts with acids; it may be converted into caffeine, *which see*.

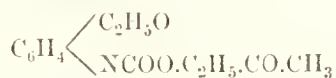
[*Carnine*, with one atom more oxygen ($C_7H_8N_4O_3$), exists in extract of meat.]

A cardiac tonic. "Good in dropsy with small compressible pulse."
—Dr. T. Oliver, *Lancet*, p. 201, 1887.

Thermine. *Tetrahydro-beta-naphthylamine.* $C_{10}H_7H_1.NH_2$.

A limpid, thickish liquid, without colour, but with a powerful odour and strong basic power. It causes mydriasis and elevation of temperature, and hence its name. Its hydrochlorate is in white crystals, soluble in water.

Thermodin. *Acetyl-p-ethoxyphenylurethane.*



Thermodin forms colourless crystals, almost insoluble in cold, and very slightly soluble in warm water. Melting-point 86° — 88° C. Prof. J. v. Mering recommends it as an antipyretic of certain but mild action. Dose, 20 grains, or 7 grains three times a day.

Thialdine.

Trithialdehyde in which an atom of sulphur replaces one of ammonia; in large aromatic crystals, with a paralysing effect.

Carbothialdine, produced by action of carbon bisulph. and ammonia on aldehyde, has an energetic tetanic action on the system.

Thilamin

Is the name given by Seibel to a sulphuretted lanolin. Produced by allowing sulphur to act on lanolin, it contains 3 per cent. of sulphur. A yellowish-brown substance of the appearance of vaseline. It is devoid of irritating properties, and has been beneficially used by dermatologists in eczema.

Thiocamph.

A fluid disinfectant, used for fumigation; formed by the action of sulphurous acid on camphor, which on exposure evolves sulphur dioxide in steady fumes; it is stable and permanent when contained in closed vessels, but rapidly evolves SO_2 on exposure.

Thiocarbamid. *Stain removing and clearing.*

After fixing with, and then washing away, the hyposulph., the negative or paper print is put into one of the following solutions until the discoloration or stain has disappeared. (1) 20 parts Thiocarbamid; 10 parts citric acid; 1000 parts water. (2) 20 parts Thiocarbamid; 20 parts alum; 10 parts acetic acid; 1000 parts water.

Phanerogen is another new photographic developer.

Thiotone is a solution of ammonium sulphide, used for toning silver-chloride gelatine prints.

Thioform. *Dithiosalicylate of Bismuth.*

A light yellowish powder, without odour or taste; insoluble in water or alcohol. It possesses the medicinal effects of iodoform, being at the same time antiseptic and exsiccative. Thioform has also been given with good results as a medicine for chronic intestinal catarrh, in 3-grain doses; it has also been introduced into surgery with promising success.

Thiol. *Ammonium sulphthiolate.*

This synthetical product of hydrocarbons, sulphuretted to 10 per cent., replaces ichthyol in skin affections.

It is a dark brown syrupy fluid, specific gravity 1.081 at 15° C., soluble in water, and non-irritant.

THERAPEUTICS. Administered in an ointment, 10 to 50 per cent., with fossiline, vaseline, or lanolin.

The dry powder, obtained by evaporation, is $2\frac{1}{2}$ times the strength of the liquid. It can be used as a dusting powder, 1 to 5 parts of tale or starch; and also taken internally in pills, 2 grains a day up to 24 grains in the day.

Thiophen. $C_4H_2I_2S$.

A white oily fluid, allied to pyrrol. Its di-iodide is in crystals, soluble in alcohol but insoluble in water. It is a succedaneum of iodoform, drying up wounds and helping granulations.

Thioresorcin. $C_6H_4(OS)_2$.

It is a sulphur substitution of resorcin, and has been used instead of iodoform; a yellowish inodorous powder, insoluble in water, scarcely so in alcohol, but soluble in dilute alkalies. As a dusting powder or ointment (10 to 20 per cent.) with fossiline or vaseline in eczema, &c.

Di-iodothioresorcin. A brown powder, soluble in alcohol; has been similarly employed.

Dihydroresorcin is another antiseptic resorcin derivative. Yellow crystals, soluble in water; the powder is applied to wounds, burns, &c.

Thiosaprol.

A sulphuretted soap, containing 10 per cent. of sulphur, obtained by heating together sulphur and oleic acid, saponifying the resulting sulphur compound with an alkaline hydrate: a successful application to many skin diseases.

Thiosavonal.

A sulphur soap, soft and soluble in water: made by dissolving balsam of sulphur in alcohol, and saponifying with potash. In liquid and paste forms; used in skin diseases.

Thiosinamine. *Allyl sulphocarbamide.* $\text{CS} \begin{matrix} \diagup \text{NH} \\ \diagdown \text{NH}_2 \end{matrix} \text{C}_3\text{H}_5,$

This has been recommended by v. Hebra in lupus and some related diseases.

It is formed by warming mustard oil, $\text{C}_3\text{H}_5\text{NCS}$, with a strong solution of ammonia. On evaporating the solution, Thiosinamine crystallises in colourless prisms. It is readily soluble in water, alcohol, or ether, has a faint alliaceous odour, bitter taste, and melts at 74°C . It is used in the form of alcoholic injection, containing from 15 to 20 per cent., usually in the back between the shoulder-blades. Lupus is benefited, cicatricial tissue generally softened, and glandular swellings diminished.

Thiuret.

A light, odourless, crystalline powder, strongly antiseptic, almost insoluble in water and moderately soluble in alcohol and ether. Sulphur separates out from Thiuret in the presence of alkalies, even at low temperatures. The investigations of F. Blum show that Thiuret and its salts owe their antiseptic and non-toxic properties to the separation of sulphur in a nascent state.

Thuja Occidentalis. *Arbor-vitæ. N. America. N. O. Coniferae.*

The small aromatic branches of the white cedar. Irritating to the skin, like savine. It contains the glucosides *thujin* and *pinipicrin*, and about 1 per cent. of volatile oil.

THERAPEUTICS. Applied topically to ulcers, syphilitic growths, and warts. The distilled oil is used externally, or compresses are dipped in the tincture. The fluid extract is a febrifuge, 30 drops night and morning; it is also an emmenagogue. Tincture, 1 part of fresh tops to 5 of rectified spirit; dose, 2 to 5 minims.

Thymacetin.

An analgesic introduced by Hoffmann of Leipzig. It bears the same relation to thymol that phenacetin does to phenol, and is a white crystalline powder, sparingly soluble in water. Dose, 4 to 12 grains.

Thymol. *Methyl-propyl-phenol*; *Thymic Acid*. $C_{10}H_{14}O$, or $C_6H_3(CH_3)(C_3H_7)(OH)$. From *Thymus vulgaris*; *Monarda punctata*. N. O. *Labiata*. (Also from *Carum Ajowan*. N. O. *Umbellifera*.)

In colourless transparent crystals. An aromatic and antiseptic stearoptene or solid volatile oil, from oil of thyme, Ajowan fruit, and other sources. Soluble in alcohol. Ointment, 10 to 20 grains to 1 ounce of fossiline or vaseline. Official in the British, German, and U.S.A. Pharmacopœias. Dose, 1 or 2 grains in pill; in tuberculosis, &c.

Tilia Ulmifolia. *Lime*; *Linden*. Europe. N. O. *Tiliaceæ*.

The yellowish flowers, in cymes, partially united to a long bract, contain volatile oil and mucilage, with a pleasant odour; they are diaphoretic and used extensively on the Continent in tisane.

Toluene. *Toluol*. $C_6H_5.CH_3$.

Is now recommended in Germany as an efficient expanding medium for thermometers. Toluene is methyl-benzene, obtained by the destructive distillation of woods of various kinds. It is a colourless, oily, highly refractive liquid, proposed to be coloured by aniline for the above use. It freezes at $-20^{\circ} C.$ ($-4^{\circ} F.$) and boils at $111^{\circ} C.$ ($231.8^{\circ} F.$), and has five times the expansive power of, and is cheaper than mercury. It has been employed as a microbicide in swabbing the false membranes of diphtheria.

Tolpyrin and Tolysal.

These two substances are homologues of antipyrin and salipyrin respectively. The introduction of certain groups into the para-position of phenyl derivatives is known to modify the action, and especially to reduce the toxicity of the original remedies. Tolpyrin is chemically p-tolyldimethylpyrazolon, $C_{12}H_{14}N_2O$. This base, like antipyrin, forms a crystalline salicylate, $C_{12}H_{14}N_2O.C_7H_6O_3$, which has been patented under the name of *Tolysal*. The white crystals of tollysal melt at 101° to $102^{\circ} C.$, are slightly soluble in water, and very readily dissolved by alcohol. Tolpyrin is given in same doses as antipyrin; Tolysal in cachets of 7 to 15 grains, and for articular rheumatism in doses of 30 grains.

Tongaline.

An American proprietary made by the Mellier Drug Company, St. Louis, U.S.A., consisting of the Hawaiian drug tonga, salicylic acid, pilocarpine salicylate, and colchicine. It is a liquid, and used as an antirheumatic, in doses of 1 to 2 drachms in water.

Traumaticin.

A saturated solution of gutta-percha (1 part) in chloroform (15 parts), forming a thick liquid. Macerate for two days, and distil off half the chloroform.

Three parts of ichthyol, salol, phenol, or lysol may be added to ten of traumaticin; it forms a thin pellicle when the chloroform evaporates.

Ichthyol traumaticin is used in erysipelas.

Tranmatol. *Iodo-cresol.*

Prepared by the action of iodine on oxytoluene. It is described as a fine reddish-violet precipitate without odour. Intended to be dusted on abrasions of the skin.

Tribromophenol. $C_6H_3Br_3OH$.

White crystals, soluble in alcohol. An antiseptic, especially for intestines. Internal dose, 1 to 4 grains.

Tribrom-salol. An intestinal antiseptic, like salol.

Trichlorphenol.

Carbolic acid in which 3 atoms of chlorine displace 3 of hydrogen: produced by the action of carbolic acid on chlorinated lime.

White, strong-smelling crystals, soluble in alcohol, insoluble in water; reported to be a more powerful disinfectant than carbolic acid.

Trickresol.

It consists of the three cresols, orthocresol, metacresol, and paracresol, isolated and freed from crystallised carbolic acid, neutral oils, pyridine, and naphthalene. Owing to its sameness in composition, which is evidenced in its constant specific gravity, boiling-point, and other physical factors, Trickresol has a definite antiseptic strength. It is soluble in water and has comparative freedom from toxic action.

Trillium Erectum. *T. purpureum.* *Bethroot; Birthwort.* *N. America.*
N. O. Liliaceæ.

Long, annulate, orange-brown rhizome and rootlets, which contain an acrid glucoside and fixed oil. Emmenagogue in doses of $\frac{1}{2}$ to 1 drachm. *Trillin*, the electric concentration, has the same properties; dose, 2 to 4 grains.

Trimethylamine. $N(CH_3)_3$. *From Herring-brine.*

Usually a solution of 20 per cent. of this compound ammonia in water. Dose, $\frac{1}{4}$ to 1 drachm every few hours. The hydrochlorate is also used; dose, 2 to 3 grains in a varnished pill. Employed in acute rheumatism, as it lowers the pulse as well as the temperature. Isomeric with *propylamine*.

Trional. (*See page 185.*)

Triphenin. $C_6H_4.C_2H_5O.NH(CH_3.CH_2.CO)$.

J. von Mering describes triphenin as a homologue of phenacetin, obtained by heating parphenetidin with tropionic acid. It melts at $120^\circ C.$ ($248^\circ F.$), and is soluble in about 2000 parts of cold water; it is therefore considerably less soluble in water than phenacetin or the other commonly used antipyretics and antineuralgics. In cases of headache, migraine, sciatica, &c., it acts promptly but mildly in 7 to 15-grain doses, which may be repeated three or four times in the twenty-four hours.

Tritica.

An American speciality produced from *Triticum repens*. It is a brown liquid, and is said to allay fever in inflammatory conditions of the kidneys and urinary organs. Dose, 1 teaspoonful occasionally.

Triticum Repens. *Couch-grass; Dog-grass. Indigenous. N. O. Gramineæ.*
(*French "Chiendent."*)

Long, creeping, yellowish, hollow rhizomes, which contain 8 per cent. tritacin (resembling inulin), glucose, malates, but no starch (Maisch). In irritation of the bladder, used in infusion as *Pareira brava*. Diluent and demulcent. Dose of fluid extract, 1 to 4 drachms. Decoction (1 in 10), dose 2 to 4 ounces.

Tropacocaine. *Benzoyl Pseudo-tropeine; Tropisin.*

It occurs with cocaine and other bases in the small Java coca leaves, and somewhat in other species: the hydrochlorate is used. Tropacocaine is considered more reliable in its action than cocaine, and the anaesthesia it produces lasts a little longer: unlike cocaine,

TROPACOCAINE—*continued*.

it antiseptically anæsthetises inflamed tissue. For general use 2 or 3 per cent. of a solution of the hydrochlorate is sufficient, whilst a 5 per cent. solution may be used with safety when anæsthesia of deep-seated parts is required. Solutions of tropacocaine made with distilled water keep well. "It practically has no mydriatic action." —Dr. Ferdinands, *Brit. Med. Journ.*, 1893, p. 1318.

Trypsin.

One of the ferments of the pancreatic juice, soluble in water, insoluble in alcohol. It has been used in a 10 per cent. aqueous solution, to dissolve the false membranes in diphtheria.

Tuberculin. *Koch's Lymph.*

This is a brownish neutral liquid, slightly frothing, soluble in water, consisting of ptomaines of the tubercle bacilli. It owes its almost lethal activity probably either to an animal alkaloid or ptomaine, or to a protein body (a toxalbumen or globulin) which may produce, like a snake poison, blood-coagulation and death.

THERAPEUTICS. The first maximum dose to be injected is 0·001 c.c. or $1\frac{1}{2}$ minims of a 1 per cent. solution at intervals of one day; then to be increased gradually to 0·1 c.c. (about $1\frac{1}{2}$ minims) or 1 cubic centimetre (16 minims) of a 10 per cent. solution.

Antiphthisin is Prof. Edwin Klebs' tuberculin in a purified form, and is now on its trial for tuberculosis.

Tumenol.

Produced from mineral oil treated with concentrated sulphuric acid. Of an oily consistence, used in 10 to 25 per cent. ointments. It is used in all forms of pruritus, and good results are generally obtained when used in excoriations and superficial ulcerations. It is not of service in erysipelas, like ichthyol or thiol.

Turnera Aphrodisiaca. (*See Damiana.*)**Turpentine (Chian).** *From Pistacia terebinthus. N. O. Anacardiaceæ.*

Pale yellowish brown; soft yet brittle, but not bitter. Supposed of value in cancer. Dose, 6 grains in 2 pills every six hours.

Turpeth. *Ipomœa turpethum.* E. Indies. N. O. *Convolvulaceæ.*

Root—large, whitish, resinous when fresh—with starchy interior. The resin, about 10 per cent. in the root, is a glucoside, and is purgative in doses of 5 to 8 grains. In French Codex, 1884.

Tussol. *Antipyrin Amygdalate.*

Recommended by Dr. Rehn, of Frankfort-on-the-Main, as giving in some respects better effects than antipyrin alone, especially in the treatment of pertussis in children, where it apparently not only reduces the frequency of the paroxysms, but mitigates their severity. It has been given dissolved in water to children as young as one year old, in doses of about $\frac{3}{4}$ to $1\frac{1}{2}$ grains two or three times a day, and from this to about $7\frac{1}{2}$ grains several times a day to older children.

Ulexine. From *Ulex europæus*, Furze. Indigenous. N. O. *Leguminosæ.*

From the seeds; discovered by A. W. Gerrard.

A powerful organic base, soluble in water, insoluble in ether. Its salts as sulphate, nitrate, hydrobromate, &c., are crystalline and soluble in water.

THERAPEUTICS. A powerful diuretic, like sparteine or preparations of *Sarothamnus scoparius* (*Cytisus scoparius*).

Dose, $\frac{1}{10}$ grain in a pill. To be employed with caution in cases of stricture.

“In doses of $\frac{1}{6}$ grain, it first contracts and then dilates the kidneys, with marked increase in urinary flow: the effective dose is limited by its toxic action on the respiratory centres.”—Dr. Phillips of London, *N. Y. Medical Record*, September 10th, 1887.

Ulmus Fulva. Slippery Elm. N. America. N. O. *Urticaceæ.*

Inner bark; large flat tough pieces, pale brown, with heavy sickly odour and little taste. Demulcent and mucilaginous; excellent for poultices, or in infusion for catarrh.

Ural. *Uralium*; Chloral-urethan.

$$\begin{array}{c} \text{Cl}_3 \\ | \\ \text{C}^{\text{H}} \begin{cases} \nearrow \text{OH} \\ \searrow \text{NH.CO.OCC}_2\text{H}_5 \end{cases} \end{array}$$

A combination of chloral hydrate and urethan. Hypnotic. In white crystals, very bitter, and little soluble in water. To be given like chloral hydrate, than which it is said to be quicker in its action, producing a long, soothing sleep, without unpleasant after effects. Dose, 15 to 40 grains in an aromatic draught. See also page 64.

Uranium Nitrate. $\text{U}_2\text{O}_3\text{N}_2\text{O}_5 + 6\text{H}_2\text{O}$ [UO_2NO_3 —Fownes].

In crystalline plates of a pale lemon colour; odourless and freely soluble in water and alcohol.

It reduces the quantity of urine in diabetes. Dose, 1 to 2 grains.

Urea-Quinine. *Hydrochloride of Quinine and Urea; Quinine Hydrochlor-carbamide* ($\text{C}_{21}\text{H}_{28}\text{N}_4\text{O}_3 \cdot 3\text{HCl} + 2\text{H}_2\text{O}$ probable formula).

In hard white acicular crystals, very soluble in water.

THERAPEUTICS. Antipyretic. It can be given internally or by hypodermic injection. Its antipyretic effects are said to be well marked, without headache. From its taste not being very bitter, it is pleasant for children; a grain hypodermically is reported to have the effect of 10 to 20 grains of quinine taken internally.

Ureclidin.

A German, brownish, granular preparation from lemon juice and citrate of lithia. For gout, gravel, calculi, and uric acid diathesis (Martindale). Dose, 15 grains to $1\frac{1}{2}$ drachms in one day.

Urethan. *Ethyl-urethane.* $\text{CO}(\text{NH}_2)(\text{O.C}_2\text{H}_5)$ *Ethyl-ether of carbaminic acid; Ethyl Carbamate.*

This substance was proposed as an hypnotic by Prof. O. Schmiedeburg, of Strasbourg, in 1885.

Crystalline, colourless, with ethereal odour and saline taste; soluble in twice its weight of water and alcohol, and melting at about 120°F .

THERAPEUTICS. A useful mild hypnotic, inducing a natural uncomatose pleasant sleep.—*Practitioner*, 1885. Useful in simple insomnia, with but little disturbing effect on the general functions, and therefore called for in exhausting diseases. "In large and continued doses does harm."—*Brit. Med. Journ.*, November 2nd, 1889.

Dose, 15 to 40 grains, in powder or solution; 30 grains a fair usual dose.

FORMULA:

Urethan	...	...	...	...	...	2 drs.
Syrup Simp.	...	...	...	...	...	1 oz.
Aqua	...	...	...	...	...	3 oz.

Two teaspoonfuls for a dose.

Ethyliden Urethan. $\text{C}_3\text{H}_{16}\text{N}_2\text{O}_4$, or $\text{CH}_3\text{—CH}$ $\begin{cases} \text{NH—COOC}_2\text{H}_5 \\ \text{NH—COOC}_2\text{H}_5 \end{cases}$

In white, silky, needle crystals, soluble in hot water, alcohol, and ether.

Uropherin. UROPHERINE SALICYLATE (*Theobromine Lithium Salicylate*).
UROPHERINE BENZOATE (*Theobromine Lithium Benzoate*).

These Uropherins are white, powdery substances, which form clear solutions with lukewarm water. The solutions of these preparations should be kept in air-tight vessels. Theobromine Lithium combination is much more easily absorbed than the commonly used diuretin (Dr. Gram of Copenhagen); also the therapeutic effects can be obtained from much smaller doses (2 scruples to 1 drachm). In degenerative heart disease and acute nephritis with uræmia there is a marked diuretic effect. Dose of a solution, 1 part in 15 parts of distilled water, a tablespoonful three or four times a day: also in 15 grain cachets, several in the day.

Urotropine. $C_6H_{12}N_4$. *Formin*.

Urotropine is hexamethylenetetramine, a white crystalline solid formed by the action of ammonia upon formalin. Doses of 90 grains daily can be safely taken by adults, and diuresis is increased. This remedy is particularly suited to the treatment of uric acid concretions, as after the administration of urotropine the urine, without losing its acid reaction, is reported to be possessed of uric acid dissolving properties. Dose, 15 to 25 grains daily, given in one dose, dissolved in water, in the morning.

Urtica Dioica. *Nettle*. *N. O. Urticaceæ*.

The root is diuretic, and astringent in uterine hæmorrhage. Dose of fluid extract, 1 to 2 fluid drachms, diluted with water; also on wool as a plug in epistaxis. The poisonous albuminoid (or, as formerly believed, free formic acid) in the sharp hairs has, by irritation, benefited local palsy.

Ustilago Maidis. *Ergot of Corn, grown on Zea Mays; Corn Smut*. *N. O. Fungi*.

Black globose masses, sometimes two inches thick. Preferred by some to ergot of rye; employed in same doses. It stimulates the uterine fibres to quick intermittent contractions. Dose of fluid extract, 10 to 30 drops. It contains the crystalline alkaloid *Ustilagine*, white, bitter, soluble in water, and combining with acids; also about 2 per cent. of fixed oil.

Vanillin. $C_8H_8O_3$, or $C_6H_3(OCH_3)(OH).COH$. *Vanillic Aldehyde*.

The odorous principle of vanilla. Prepared artificially from the crystalline glucoside Coniferin, $C_{16}H_{29}O_8$ (obtained from the cambium sap of pine trees); also from the eugenol of oil of clove, benzoin, and since 1881 from nitro-benzol. In long white needles, soluble in alcohol, with the odour and taste of vanilla. In French Codex, 1884.

THERAPEUTICS. Antiseptic. Aids digestion in atonic and putrefactive dyspepsia. Dose, $\frac{3}{4}$ grain.

Vaselon.

Solution of stearon and margaron in neutral mineral oil. Ointment base.

Vasogen.

Vaseline or fossiline treated by an excess of oxygen, which then makes an emulsion with water. It forms an excipient for menthol, iodoform, creosote, chrysarobin, ichthyol, and pyrogallol, which, however, must be incorporated during its manufacture.

Veratrol. *Pyrocatechine-dimethyl-ether*.

A clear liquid bactericide in tuberculosis; also an analgesic in neuralgia.

Veratrum Viride. *Green Hellebore; American Veratrum. United States and Canada. N. O. Liliaceae.*

The rhizome and rootlets resemble white Veratrum, and have a bitter acrid taste; they contain three principal alkaloids—jervine, pseudo-jervine, and cevadine, to which their active properties are due.

THERAPEUTICS. Diaphoretic, emetic, and sedative. It has been employed for pneumonia, gout, rheumatism, typhoid fever, and as a cardiac depressant. To be used with care, as it produces nausea and exhaustion. One part of the fluid extract is equivalent to one part of the rhizome. Dose of fluid extract, 1 to 4 minims.

Verbascum Thapsus. *Mullein. Indigenous. N. O. Scrophulariaceae. (French "Bouillon blanc.")*

Large leaves, resembling digitalis, but thickly coated with branched stellate hairs. The leaves and yellow flowers are pectoral and demulcent, and are so used on the Continent.

VERBASCUM THAPSUS—*continued*.

THERAPEUTICS. A general palliative in pulmonary consumption. Boil 1 ounce dried or 3 ounces fresh leaves in a pint of milk ten minutes, strain, and drink hot. Dose of fluid extract, 10 to 30 drops. Tincture (1 in 8 proof spirit), 20 to 60 minims.

“It is valuable in increasing weight in consumptive cough.”—Dr. Quinlan, *Brit. Med. Journ.*, January 27th, 1883.

Vetiver. *Andropogon muricatus.* India. N. O. Gramineæ.

Long, pale brown, fragrant rootlets. Tonic; used in perfumery.

Viburnum Prunifolium. Black Haw. United States. N. O. Caprifoliaceæ.

CHARACTERISTICS. Thin, easily detached bark, in purplish warty pieces, soon breaking up; with whitish interior, darker on surfaces; bitter taste and rather strong unpleasant odour.

THERAPEUTICS. Employed in preventing abortion, and stopping a threatened miscarriage. Dose, $\frac{1}{2}$ to 1 drachm of fluid extract every hour, or 3-grain doses of solid extract every three or four hours.

“It arrests uterine action.”—Dr. Campbell, *Brit. Med. Journ.*, February 27th, 1886. “A 4-grain pill, three times a day regularly, arrests abortion.”—Roberts, *Brit. Med. Journ.*, November 26th, 1887. In dysmenorrhœa, in 30-minim doses of fluid extract.

Viburnin is the resinoid. Dose, 2 to 5 grains.

Viburnum opulus is cramp-bark; its quilled bark, containing valerianic acid, is an antispasmodic uterine sedative.

Vinca Major. Periwinkle—the only British genus of N. O. Apocynaceæ. (French “*Perrenche*.”)

Astringent, to arrest menorrhagic and other hæmorrhages. Dose of fluid extract (1 part in 1), 1 to 2 drachms.

Viscum Album. Mistletoe. Indigenous. N. O. Loranthaceæ.

A well-known English parasitic plant. The fluid extract is made from the whole plant: contains *viscin*.

THERAPEUTICS. Has been used as a substitute for digitalis in heart disease. Dose, $\frac{1}{2}$ drachm to 1 drachm of fluid extract; tincture (1 in 5 proof spirit), 1 drachm.

Xanthorrhiza Apiifolia. *Yellow-root. U. States. N. O. Ranunculaceæ.*

This long, thick, branching rhizome has a yellow interior, and is bitter, like *Coptis*, from presence of berberine; it also contains another white alkaloid. Tonic. Dose of fluid extract, $\frac{1}{2}$ to 1 drachm.

Xanthoxylum Fraxinum. *Northern Prickly Ash. N. America. N. O. Rutaceæ.*

Bark, root, and berries. The bark is in quilled pieces, with pungent, bitter taste and little odour, containing a crystalline resin and green acrid oil.

THERAPEUTICS. Permanent, pungent, aromatic stimulant, especially in chronic rheumatism. Dose of fluid extract, 10 to 30 minims. *Xanthoxylum*, resinoid, from bark. Dose, 1 to 3 grains. *Xanthoxylum carolinianum*, Southern Prickly Ash, has similar properties.

Xylol. C_8H_{10} .

Thin, white, oily liquid. A coal-tar hydrocarbon; proposed as an external remedy for smallpox; now neglected. Dose, 3 to 5 minims.

Yeast. *Torula cerevisiæ. N. O. Fungi.*

A frothy, viscid mass of round cells, with bitter taste, found in fermenting malt liquids; used in poultices on account of its stimulating properties.

Yerba Buena. *Micromeria Douglasii. California. N. O. Labiatæ.*

Herb. Aromatic, slightly bitter. Tonic, laxative, and alterative. Dose of fluid extract, 1 fluid drachm.

Yerba Rheuma. *Frankenia grandiflora; F. grandifolia. California. N. O. Frankeniaceæ.*

A seaside, grey-green, inodorous herb. Catarrh, dysentery, and discharges from all the mucous membranes. Dose of tincture (8 ounces to 20 ounces proof spirit), 30 to 60 drops; fluid extract, 10 to 20 minims.

Yerba Santa. *Eriodictyon californicum; E. glutinosum. N. America. N. O. Hydrophyllaceæ.*

Pale green, thickish lanceolate leaves, shining and brittle from their resinous nature.

THERAPEUTICS. A stimulant expectorant, with a pleasant balsamic odour and taste. Used in bronchitis, especially combined with

YERBA SANTA—*continued*.

Grindelia robusta. Dose, fluid extract, 1 fluid drachm ; tincture, 1 to 2 fluid drachms. The syrup (1 of fluid extract in 7) masks taste of quinine and other bitters.

Malto-gerbine is a proprietary medicine composed of maltine and Yerba Santa.

Yerbazine.

A proprietary medicine made by Eli Lilly and Co., U.S.A. It is composed of Malt and Yerba Santa, and is used as a vehicle for quinine and other bitter medicines, in doses of one teaspoonful.

Zea Mays (Maize) Stigmata. *Corn-silk (i.e. the fresh green pistils) N. O. Gramineæ.*

The thread-like stigmata (taken after shedding of pollen of stamens) yield 25 per cent. of watery extract, of which a teaspoonful may be taken daily. Active principle is believed to be maizenic acid. Demulcent, diuretic, in catarrh of bladder, gravel, dropsy, and nephritic colic. Tincture (1 in 5 proof spirit) or syrup ; dose, 1 to 2 fluid drachms daily.—*Lancet*, July 21st, 1883, and October 31st, 1885. Dose of fluid extract, 15 to 60 drops. The seeds produce a bland oil.

“Of value in renal colic and chronic cystitis.”—*Lancet*, September 24th, 1887.

Zinc Stearate. $\text{Zn. (C}_{18}\text{H}_{35}\text{O}_2)_2$.

A soft white powder, antiseptic, astringent, and non-irritant to mucous membranes. Gonorrhœa, nose diseases, &c.

Zinc Subgallate.

An odourless, greenish-grey powder, unaltered by light, containing 44 per cent. zinc oxide and 56 per cent. gallic acid. Used internally in doses of $\frac{1}{2}$ to 4 grains as an antiseptic astringent. Said to be useful in night sweats, and also in intestinal fermentation. Used externally as a dusting powder, or in the form of an ointment. As an injection it may be suspended in water in the proportion of 1 to 16.

Zinc Sulphydrate. $\text{ZnS.H}_2\text{S}$.

A white precipitate, which must be kept under water to prevent decomposition. For eczema, psoriasis, &c. In pills of 2 grains daily. Also an ointment, as follows :

Zinc Sulphydrate	...	...	...	...	10 parts.
Lanolin	...	...	...	...	40 „
Lard	...	...	...	...	90 „

Zinc Lactate. $\text{Zn}_2\text{C}_3\text{H}_4\text{O}_3$.

White crystallised plates. Soluble in 58 parts of cold water. In epilepsy; dose, 2 to 10 grains three times a day. Zinc bromide and citrate are used in similar doses.

Zinc Permanganate.

Dark brown deliquescent crystals; in astringent lotions.

Zinc Phosphide. Zn_3Pb_2 .

Crystalline metallic fragments or greyish-black powder, containing about 25 per cent. of phosphorus. Employed as a nervous stimulant in spinal irritation and exhaustion and depression of the nervous forces. Dose, $\frac{1}{16}$ to $\frac{1}{4}$ grain; may be made in one pill with $\frac{1}{4}$ grain extract of *Nux Vomica*.

A D D E N D A.

Alapurin.

The name Alapurin is applied to a wool-fat which is odourless and almost white without the addition of water.

Aloin and Formaldehyde.

A condensation product of Aloin and Formaldehyde: it is an amorphous substance, insoluble in ordinary solvents, but soluble in caustic alkalies. It is considered superior to Aloin on account of its less bitter taste, and from its producing a more lasting effect on account of its slower solubility.

Celerina.

An American proprietary made by the Rio Chemical Company, St. Louis, Mo. An antispasmodic nerve tonic, described as containing celery, coca, kola, and viburnum. Dose, 1 or 2 fluid drachms several times a day.

Chinaphthol.

A combination of quinine and naphthol, prepared by Merck; a yellow crystalline bitter powder, soluble in *hot* water.

An intestinal antiseptic in doses of 10 to 50 grains daily in pills.

Chionia.

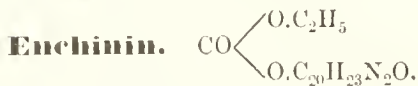
An American proprietary prepared from *Chionanthus* by the Peacock Chemical Company, St. Louis, Mo. It is an hepatic stimulant for biliousness, &c. Dose, 1 fluid drachm three times a day.

Cresochin.

A disinfectant ; is stated to be a neutral combination of quinoline tricrosyl sulphonate and a quinoline compound of tricrosol, containing 33 per cent. of quinoline and 17 of tricrosol. It is soluble in 20 parts of water, and is especially recommended on account of its freedom from caustic alkali.

Eucasin.

The ammonium salt of casein. It is a fine white powder, forming a clear solution with hot water. It has been recommended as a food, combined with cocoa and other articles of diet.



The ethyl ester of quinine carbonate. It has a basic action, crystallises with acids, and is in fine white needles, little soluble in water. It possesses the therapeutic qualities of quinine without its bitter taste or digestive disturbance. Dose, 10 to 15 grains a day, in milk or wine, or in cachets; 15 grains of Enchinin is equivalent to 10 grains of quinine.

Holzin.

A German antiseptic: one form is a clear liquid ; menthol and formaldehyde (17 per cent.) in methyl alcohol ; another form is oily, containing 40 per cent. of menthol. Has been used for whooping-cough.

Malarin. *Aceto-phenon-phenetidin.*

Yellow crystals, slightly acid in taste, soluble in hot alcohol, insoluble in water. Effective as an antipyretic in doses of 5 to 8 grains in fevers, neuralgic headaches, and nervous excitement.

Oxyphenacetin Salicylate.

Obtained by heating chloro- or bromo-phenacetin with sodium salicylate. It is in shining crystals, and is said not to possess the disagreeable properties of its component substances when by themselves.

Paraplast.

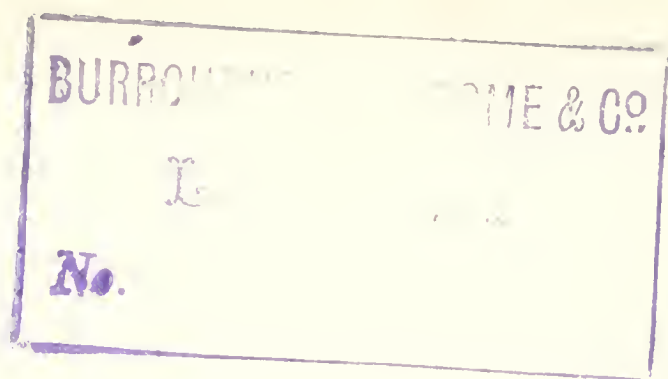
Invented by Dr. Unna. It consists of a thick web of cotton, with a mass spread on it of lanolin, dammar, caoutchouc, and resin, into which may be incorporated any dermic remedy.

Pyramidon.

An antipyrin derivative ; a whitish crystalline powder, soluble in 10 parts of water, with a pleasant taste. Used like antipyrin, in doses of 2 to 7 grains.

Seng.

An American preparation made by the Sultan Drug Co., St. Louis, from Panax Schinseng, of Manchuria, for indigestion and malnutrition ; one or more teaspoonfuls three times a day.



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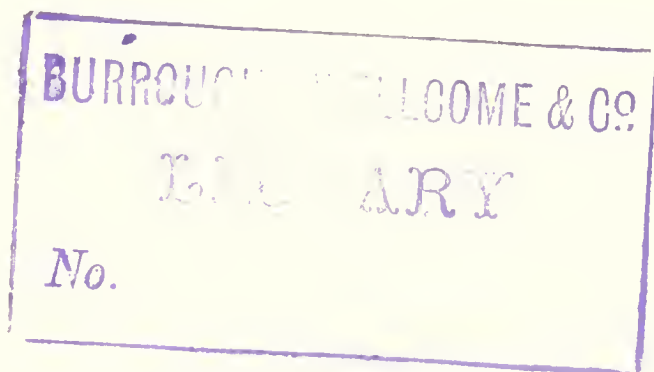
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June, 1897.

SUPPLEMENTARY RECENT MATERIA MEDICA.

Actol. *Silver Lactate.*

Recommended by Dr. Credé, of Dresden, as an efficient surgical antiseptic. A fine powder, without odour or colour, non-toxic and non-irritant. In solution of 1 in 1000.

Agopyrin.

An American proprietary; tablets or powders consisting of antipyrin salicylate, ammonium chloride, and cinchonine sulphate. For catarrh, influenza, &c.

Aluminium and Potassium Para-phenol-sulphonate.

White crystals, soluble in water; an astringent antiseptic, of which the solution is used as a wash for indolent ulcers.

Ammonium Salicylate.

A white powder with sweetish taste, soluble in water. Expectorant and antirheumatic. Dose, 3 to 10 grains.

Amyloform.

A mixture of formaldehyde and starch in a colourless insoluble powder. A strong local deodorant and disinfectant, as a dusting powder for abscesses, &c.

Antibakterin.

A compound of orthoboric acid, ethyl ether, and iron. A greenish-yellow non-toxic liquid, used in spray or vapour in infectious diseases, especially tuberculosis.

Ansol. *Bismuth Iodoresorcin Sulphonate.*

To be used in suppositories for hæmorrhoids.

Arsenanro.

An American proprietary medicine; a reddish liquid solution of gold and arsenic. Ten drops in a wine-glass of water, increasing to 20 drops, three times a day after meals as an alterative in neurasthenia and as a tonic stimulant. *Manganauro* is a solution of manganese and gold; *Mercauro*, one of mercury and gold; both are alteratives, in above doses.

Atropine Iodide.

In colourless needles, soluble in water and alcohol. Used in ophthalmic practice. *Atropine stearate*, an unctuous white powder; used externally and in ointments.

Bismuth Albuminate.

Pale grey powder, insoluble in water. For gastric and intestinal cramps. Dose, 8 to 15 grains. *Bismuth resorcinate*, a yellowish-brown powder, used as an antiseptic dusting powder. *Bismuth-naphthalin benzoate* or *Intestin* is an intestinal antiseptic.

Blennostatine.

An American proprietary medicine, in white crystals. In colds and influenza it produces a blennostatic or drying effect, thus diminishing mucous secretion. One to 4 grains in pills.

Boracid.

A mixture of equal parts of acetanilid and boric acid, recommended for eczema, &c. *Glybolid* is equal parts of the above preparation and glycerine.

Borol.

This preparation ($\text{SO}_2\cdot\text{OBo}\cdot\text{OK}$ or Na) is in vitreous, freely soluble pieces. A strong antiseptic, externally in a 2 to 5 per cent. solution, and internally 10 to 50 drops in water of a 20 per cent solution. Distinct from *Boral* (*Rec. Mat. Med.*, p. 48).

Branalcane.

A concentrated glyceride of two non-poisonous antiseptic tar by-products, containing boracic acid. A coloured syrupy liquid, antiseptic in diphtheria and diseases of the mucous membrane. To be painted on the mucous membrane, undiluted. Also a teaspoonful in 5 ounces (a teacupful) of warm water as a gargle, spray, &c.

Bromol. *Tribrom-phenol*; *Brom-phenol* (not *bromo-phenol*).

White crystalline powder, or soft white crystals. Soluble in alcohol; almost insoluble in water. Disinfectant, surgical and intestinal (wounds, diarrhoea, typhoid fever, &c.). Externally in 2 to 3 per cent. oily solution, or in 4 per cent. glycerine solution (diphtheria). Internally, $1\frac{1}{2}$ grains four or five times daily. Distinct from *Bromal* (*Rec. Mat. Med.*, p. 49).

Bromophtharitharin.

A mixture of zinc oxide, calcium oxide, calcium carbonate, and sodium sulphate. A deodorant disinfectant.

Bromopyrin.

The monobromine substitution product of antipyrin, insoluble in water, readily soluble in alcohol; melts at 114°C .

Butyl-hypnal.

Combination of butyl-chloral with antipyrin. Colourless needles, soluble in water and alcohol.

Caffeine Iodol.

A combination in molecular proportions which does not liberate iodine as rapidly as iodol, for which it can be substituted.

Calcium Carbide.

A black-grey mass (CaC_2) that on contact with water gives off acetylene gas. It has been used by Guinard in France for cancer, the liberated acetylene gas being hæmostatic, and the resulting calcium oxide caustic in its effects.

Calcium Salicylate.

White, inodorous, tasteless, crystalline powder; almost insoluble in water. In gastro-enteritis; dose, 8 to 24 grs.

Campho-pyrazolon.

Fine crystalline needles, insoluble in water, soluble in alcohol. Substitute for camphor.

Casein Formaldehyde.

Coarse, yellowish, odourless, almost tasteless powder; non-irritant to the skin. Mild antiseptic, and as a protection for fresh wounds.

Celloidin.

A transparent gelatinous pyroxylin, free from organic substance. It dissolves in ether and alcohol, giving a clear collodion for photography that can be iodised immediately without change of colour.

Cerebrum Exsiccatum.

Dried and powdered calf's brain. In neurasthenia, chorea, and mental diseases.

Chelidonine.

The salts of this alkaloid, as the soluble phosphate and sulphate, and the insoluble tannate, have lately been recommended for carcinoma of the stomach and gastralgia, in doses of 1 to 4 grains, as mild, soothing narcotics without producing stupor. See *Rec. Mat. Med.*, p. 61.

The aqueous extract of fresh *Chelidonium majus* has been lately used for cancer; daily doses of 20 to 80 grains of the extract internally, and subcutaneous injections of about 8 drops made every few days near seat of disease.

Chinoform.

Compound of formaldehyde and chinotannic acid. Properties and uses like those of tannoform.

Chinoline Rhodanate (Sulphocyanate).

White crystals, soluble in hot water. Powerful bactericide in 1 per cent. solution.

Chloral-acetophenonoxim.

Patented by Lensen, of Frankfort, and produced by the action of chloral and acetophenonoxim. In colourless prisms, soluble in alcohol. Recommended as an antispasmodic in epilepsy and tetanus.

Chloryl.

A mixture of ethyl and methyl chlorides used for local anæsthesia in minor surgery, dentistry, &c.

Cod-gall.

Recommended as an efficient substitute for cod-liver oil. "The latter owing its activity to certain definite products of liver action, it is believed that its biliary product, or Cod-gall, deserves a trial. Add 1 ounce of it with $2\frac{1}{2}$ drachms of extract of pancreas to a pint of sherry, and give one to four teaspoonfuls at or after meals four times a day."—*Lancet*, 1896, vol. ii, p. 156.

Colligamen.

Glycerine zinc paste. Used in surgical dressing.

Coronilla Varia. *Coronilla bigarée.* *N. O. Leguminosæ.*

The entire plant is used. Cardiac. Dose of drug, 30 to 60 grs.; of extract, 15 to 30 grs.

Cosaprin.

A non-toxic substitute for acetanilid in same doses. In small white crystals, soluble in water, but not in alcohol or ether.

Creosol. *Homoguaiacol*; *Homo-pyrocatechin-methyl Ether.*

From creosote. Oily, aromatic liquid, slightly soluble in water. Antiseptic.

Creoso-magnesol.

Compound of magnesia and creosote, containing 80 per cent. of the latter. Less irritating than creosote.

Creosote Phosphate.

Prepared by the action of creosote and phosphoric anhydride in the presence of sodium; a thick oily liquid containing 75 per cent. of creosote, but scarcely smelling of it, and with a non-pungent taste. Soluble in alcohol. In this form creosote can be taken for a long time without deleterious effects.

Cytisine. *From Cytisus laburnum.* *N. O. Leguminosæ.*

Inodorous, bitter, crystalline, soluble mass. Action between that of strychnine and curare. A cardiac in paralytic migraine, &c. Dose, $\frac{1}{20}$ to $\frac{1}{12}$ gr.

Cytisine Hydrochlorate.

White deliquescent crystals. Nervine, whooping-cough, asthma, &c. $\frac{1}{20}$ to $\frac{1}{12}$ hypodermically.

Didymin. (*Testicular substance.*)

A proprietary medicine, prepared from the testes of the sheep. In 5-grain tabloids, one or two as a dose. In diseases of the testes and want of power, it seems to tone up the failing brain.

Electrozone.

An antiseptic solution, claimed to be produced by the decomposition of sea water by electrolysis. It contains sodium, calcium, and magnesium hypochlorites and chlorides, 2.25 per 1000 of chlorine, and traces of bromides and iodides. Antiseptic and deodorant disinfectant. *Meditrina* is a weaker solution, containing 0.6 chlorine in 1000 parts.

Eosote. *Creosote Valerianate.*

Mobile, non-corrosive liquid. In tuberculosis. Dose, 15 grains, increasing to 50 grains. See also page 6.

Ergotinol.

An ergotine preparation made by Dr. Vosswinkel of Berlin. An aqueous extract of ergot, freed from oil, undergoes alcoholic fermentation, is dialysed and evaporated, so that 1 e.e. of ergotinol represents 0.5 gm. of ergot. A valuable preparation of ergot without its bad effects.

Ethyl Formiate.

A liquid with specific gravity 0.937, boiling at 54.4° C.; soluble in about 10 parts of water, with an odour of peach kernels. Antiseptic in diseases of upper air-passages.

Emmatrol. *Sodium Oleate.*

Dr. F. Blum, of Frankfort, places it in the front rank as a cholagogue, in doses of 20 grains twice daily, in 4 pills morning and evening after meals. It stimulates the biliary secretion, noticed by the passage of gravel and small stones. Soap has always been considered a laxative.

Ferrosol.

A liquid preparation claimed to be a double saccharate of sodio-ferric chloride, containing 0.77 per cent. iron. It is indifferent to acids, alkalies, and salts.

Formalin.

A 40 per cent. solution of formaldehyde, prepared by passing a current of air saturated with methyl alcohol over a spiral coil of platinum at a high heat. Antiseptic and disinfectant bactericide.

"*Strong preservative for food, ointments, &c.*"—F. C. J. Bird, at Liverpool, *Pharm. Journ.*, vol. iii, 1896, p. 269. "An ideal preserving fluid for specimens."—*Medical Record*, vol. i, p. 152. "Its vapour is an efficient disinfectant for rooms."—Dr. G. Roux, &c., *Lancet*, 1896, vol. i, p. 1678. "And

FORMALIN (*continued*).

also books, &c."—E. G. Horton, *Pennsylvania Medical News*, vol. lxix, p. 152. "As an *antiseptic* in ophthalmic cases."—*Brit. Med. Journ.*, 1896, vol. ii, p. 144. "In *ringworm*, 40 per cent. solution brushed or painted on the scalp daily."—Dr. Alfred Salter, *Brit. Med. Journ.*, 1896, vol. ii, p. 650. "For bites of mosquitoes, gnats, scorpions, &c.; apply to bite, and allow to dry on."—Dr. H. Liston, *Brit. Med. Journ.*, 1896, vol. ii, p. 1082. See also Squibb's *Ephemeris*, 1897, vol. iv, No. 5, pp. 1838—1847; and *Rec. Mat. Med.*, p. 91.

Formochlorol.

A patented combination of formic aldehyde and a neutral mineral salt, from which the vapours of formaldehyde are evolved when heated.

Glycerine Borosalicylate.

Made by heating boric acid 10, salicylic acid 10, water 10, glycerine 40; adding calcined magnesia, and evaporating to dryness. Used as antiseptic.

Glycosolvol.

Peptonised theopromon oxypropionate. Promotes tissue growth in diabetes mellitus.

Guathol. *Pyrocatechin-mono-ethyl-ether.*

An oily liquid, crystallising at 28° C., and soluble in alcohol. The ethyl compound corresponding to Guaiacol (pyrocatechin-methyl-ether). For tuberculosis, in 3 or 4-grain capsules (or in alcohol) up to 15 grains per diem. *Guaiacol valerianate* and *Creasote valerianate* are similar liquids for same complaint, and given in same form and dose.

Hæmol Hydrargyro-iodate.

Containing 13 per cent. mercury, and 28 per cent. iodine. Antisymphilitic. Dose, 1 grain in pill three times daily; the dose in pill can be increased to 4 grains. See also *Rec. Mat. Med.*, p. 101.

Hæmoncin.

Nutritive extract containing all the elements of normal blood.

Heparaden.

Extract of liver substance. A powder, 1 part equalling two parts of fresh liver. In impaired conditions of this organ.

Iodide.

Lustrous rhombic crystals. Non-toxic, antiseptic succedaneum for iodoform.

Ingestol.

Mixture of sulphates, chlorates, &c., dissolved in aromatic water. In gastric and internal troubles.

Iodo-eugenol.

Yellowish, insoluble, odourless powder. Antiseptic.

Iodosinmm.

Condensation product of albumen and iodine. In parenchymatous goitre, tetanus, &c.

Itrol. *Silver Citrate.*

Fine, white, odourless, almost tasteless powder. Soluble in 3·800. Strong antiseptic. Introduced by Dr. Credé, of Dresden. Used by Dr. O. Werler, of Berlin, in a solution 1 in 8000, as a destroyer of gonococci in gonorrhœa.

Katharol.

Hydrogen dioxide. One preparation of this name contains 30 per cent. of alcohol. Used as a cosmetic and for disinfecting wounds.

Kresapol.

Solution of crude cresols in soap, resembling lysol, &c. Antiseptic. *Phenolin* is a similar solution. *Sanatol* is a solution of crude cresols in sulphuric acid.

Lactucin. *Lactosin.*

Active principle of lactucarium. White scales, soluble 1 part in 70 of water or alcohol. Sedative hypnotic; dose, 1 to 3 grs.

Lamine.

Alkaloid from *Lamium album*. Its salts are employed subcutaneously as hæmostatics.

Lienaden.

Extract of spleen or spleen substance. In powder, 1 ounce equalling 2 ounces of fresh spleen. In malaria; dose, 5 to 10 grains after meals.

Lobeline Sulphate.

From the leaves of *Lobelia inflata*. Yellowish-white, rather hygroscopic powder. For bronchitis, dyspnoea, and spasmodic forms of asthma. Dose, 1 to 4 grs.

Loretin.

"Dusted on the skin or over a granulated wound, this causes not the slightest irritation. It destroys the malodour of fœtid cancerous sores. . . . It has proved an ideal antiseptic and deodorant, with no single drawback."—*Brit. Med. Journ.*, 1895, vol. ii, pp. 1549 and 1637. See *Rec. Mat. Med.*, p. 121.

Luteol. *Oxychlor-diphenyl-quinoxalin.*

Fine yellowish needles, insoluble in water, but soluble in hot alcohol. An indicator for alkalis in analysis, similar to phenol-phthalein. See *Rec. Mat. Med.*, p. 146. It has nothing to do with the yellow colouring substance, *Luteolin*.

Magnesium Benzoate.

White, crystalline, soluble powder. Used in gout, calculi, &c. Also antitubercular. *Magnesium lactate*, colourless, soluble crystals. Laxative; dose, 15 to 45 grs. *Magnesium salicylate*, colourless hygroscopic crystals. In abdominal typhus. Dose, 15 to 30 grs.

Manganese Saccharate.

Brown powder, soluble in water. The *albuminate* (yellowish-white scales, soluble in water), *peptonate*, and *saccharate* have been recommended in the same way as hæmogallol.

Meconarceine.

Lemon-yellow crystals. Soluble in diluted alcohol. Sedative in bronchitis, neuralgia, and insomnia. Dose, $\frac{1}{6}$ to $\frac{1}{2}$ gr.

Mercuric Silico-fluoride.

In white prisms, soluble in water. One of the most powerful antiseptics applied to pathogenic micro-organisms. For wounds, &c., as a lotion, 1 part to 1000 of water.

Mercury Thymolate.

Colourless or reddish powder, odourless or with faint thymol odour.

Mydrol.

An iodo-methyl-phenyl-pyrazolon compound. White, odourless, bitter powder, easily soluble in water. It slows the pulse and acts as a mydriatic: this action begins gradually, but continues for a long time. Use a solution, 1 in 10 of water.

Napelline. *From Aconitum napellus. N.O. Ranunculaceæ.*

White powder, soluble in water, alcohol, and ether. Anodyne, analgesic. Neuralgia, rheumatism, &c.; dose, $\frac{1}{8}$ to $\frac{1}{2}$ gr.

Narceine Hydrochlorate.

Shining crystals, difficultly soluble in water, easily in alcohol. Hypnotic, anodyne, sedative. Dose, $\frac{1}{8}$ to 1 gr.

Nerine.

Toxic, strongly alkaline liquid. Used, in 3 per cent. solution, locally in diphtheria.

Nutrose.

A food preparation made in Germany. Neutral casein albuminate. Odourless, readily soluble powder, containing 13·8 per cent. nitrogen. According to Dr. R. Stüve it dissolves in warm milk or broth; dose, 1 to 2 ounces a day.

Oleite.

Jelly-like ointment base, formed by the action of sulphuric acid on castor oil.

Oleo-guaiacol.

Combination of guaiacol with oleic acid. Uses same as guaiacol.

Ossagen.

A lime salt of fatty acids of red bone marrow, of which it forms a normal constituent. In anemia, rickets, spinal curvature, and weakness of the bones.

Pangadumie.

Mixed alkaloids of cod-liver oil. Crystalline solid, soluble in water. *Adipogen* is a Norwegian paste containing half its weight of cod-liver oil, with a pleasant taste, to be taken by the spoonful or spread on bread.

Pellotin.

Introduced by Dr. F. Jolly, Berlin. This hypnotic is an alkaloid of a Mexican cactus, *Anhaloninm*. "The hydrochlorate is soluble, and a grain is equal in soporific effect to 15 grains of trional or 30 grains of chloral hydrate." — *Lancet*, 1896, p. 1760.

Peronin. *Benzyl-morphine hydrochlorate.*

A voluminous white powder, soluble in water; a good narcotic, weaker but less exciting than morphia. Dose, $\frac{1}{4}$ to $\frac{3}{4}$ grain, administered in water or in pill.

Pheduretin.

Phenol derivative. Tasteless, white, insoluble crystals. Powerful diuretic. Dose, 8 to 15 grs.

Phenocoll. *Amido-para-acetphenetidin.*

Now used for pertussis. 15 to 30 grains a day in sweetened water diminishes the severity and number of the paroxysms, acting as a nervous sedative. See *Rec. Mat. Med.*, p. 146.

Phosphergot.

Mixture of sodium phosphate, &c. For general debility.

Photoxylin.

A nitro-cellulose prepared from wood-wool, resembling pyroxylin. Soluble in equal parts of ether and alcohol. Leaves a stronger film than pyroxylin. Used in plastic surgery in 3 to 5 per cent. solution.

Pilocarpine Carbolate.

A white oily fluid, soluble in water. Bactericidal and antitoxic in phthisis and intermittent fevers; subcutaneous injections of 1 drachm of solution daily.

Protogen.

Albuminous product, not coagulated in heating. Prepared by action of formaldehyde on milk. To be added to milk for children, and in nourishing enemata.

Quinacetine Sulphate. *Di-tetra-hydro-chinolyt-methoxyphenyl-amid-acetylide Sulphate.*

Closely resembles quinine sulphate in appearance. Slightly astringent, bitter taste. Same solubilities as quinine sulphate. Antipyretic and anodyne in malaria. Dose, 10 to 20 grains.

Quinine Glycero-phosphate.

In needle crystals, soluble in water; it contains 68 per cent. quinine. The salts of glycero-phosphoric acid act as nervine tonics, and this salt especially is good in malaria and neuralgia. It can be given in 2-grain pills, several daily.

Quinine Iodo-hydro-iodate.

A brown powder, soluble in alcohol, but insoluble in water. Mentioned by Bouchardat in 1856. For secondary and tertiary syphilis. In daily doses of 10 to 30 grains, in pills, to be made up with kaolin and mucilage.

Renaden.

Extract of kidneys. In powder, 1 part equalling 2 parts of fresh kidneys. In impaired kidney functions; dose, 5 to 10 grains in water or milk.

Resopyrin.

Combination of resorcin and antipyrin. Large crystals, soluble in five parts of alcohol, insoluble in water.

Rodinal.

A photographic developer prepared from paramidophenol. Used 1 part to 25 parts of water. It contains an alkaline salt of paramidophenol, neutral sulphite, and water, but no excess of caustic alkali. It is permanent and does not stain.

Saliformin. *Urotropin Salicylate.*

A white crystalline powder, soluble in water. An antiseptic solvent for uric acid. Dose, 15 to 30 grains in solution. See Urotropin, *Rec. Mat. Med.*, p. 196.

Salubrol.

A bromine compound of methylene-di-antipyrin, which has been recommended as a non-poisonous antiseptic dusting powder.

Spasmotoxine. *Sphacelotoxine.*

Amorphous, yellow, insoluble principle from ergot, forming salts with alkalis. Oxytoxic, and arterial contractor. Dose, $\frac{1}{2}$ gr.

Stypticine.

This alkaloid has been used lately with considerable success to stop uterine hæmorrhage, in doses of $\frac{3}{4}$ grain five times a day. Dr. S. Gottschalk reports that this uterine hæmostatic has a sedative influence. See *Rec. Mat. Med.*, p. 179.

Tanghinin.

Obtained from *Tanghinia venenifera*; it has been recommended in Russia as a substitute for strophanthus. Soluble in alcohol and ether.

Thiolin. *Thiolinic Acid.*

From sulphuretted linseed oil and sulphuric acid. Dark green mass. Its uses are the same as those of thiol and ichthyol.

Thyreocautitoxin.

Crystalline, nitrogenous constituent of the thyroid gland, freed from iodine. In goitre and diseases of the thyroid. *Pertussin* is a saccharated extract of thyroid gland: in whooping-cough.

Trikresolamine.

A 4 per cent. solution of an equal mixture of ethylene diamine and trikresol. Antiseptic like trikresol, but less irritating. In $\frac{1}{5}$ to 1 per cent. solution.

Urisolvin.

A combination of lithium citrate and urea in pellets. In uric acid diathesis. Two pellets to be taken every three hours.

Zinc Borate.

Amorphous, white, antiseptic dusting powder. *Zinc chrysophanate*, brownish-red antiseptic dusting powder. *Zinc gynocardate*, granular yellow powder: an antiseptic locally in psoriasis.

Zymine.

This proprietary medicine is a pancreatic extract, containing ferments that act upon those food principles which have escaped salivary or peptic digestion: for intestinal indigestion. In powder or tabloids, 2 to 6 grains after meals.

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ERRATUM.

In *Rec. Mat. Med.*, fifth edition, p. 44, 9th line, for *Berberis* read *Beberina*.



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